CRPL-F75





# IONOSPHERIC DATA

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U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
WASHINGTON, D. C.

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## CONTENTS

## SYMBOLS, TERMINOLOGY, CONVENTIONS

Beginning with data reported for January 1949, the symbols, terminology, and conventions for the determination of median values used in this report (CRPL-F series) conform as far as practicable to those adopted at the Fifth Meeting of the International Radio Consultative Committee (C.C.I.R.) in Stockholm, 1948, and given in detail on pages 2 to 10 of the report CRPL-F53, "Ionospheric Data," issued January 1949.

For symbols and terminology used with data prior to January 1949, see report IRPL-C61, "Report of International Radio Propagation Conference, Washington, 17 April to 5 May, 1944," previous issues of the F series, in particular, IRPL-F5, CRPL-F24, F33, F50, and report CRPL-7-1, "Preliminary Instructions for Obtaining and Reducing Manual Ionospheric Records."

Following the recommendations of the Washington (1944) and Stockholm (1948) conferences, beginning with data for January 1945, median values are published wherever possible. Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data exist.

In addition to the conventions for the determination of medians given in Appendix 5 of Document No. 293 E of the Stockholm conference, which are listed on pages 9 and 10 of CRPL-F53, the following conventions are used in determining the medians for hours when no measured values are given because of equipment limitations and ionospheric irregularities. Symbols used are those given on pages 2-9 of CRPL-F53 (Appendixes 1-4 of Document No. 293 E referred to above).

a. For all ionospheric characteristics:

Values missing because of A, B, C, F, L, M, N, Q, R, S, or T (see terminology referred to above) are omitted from the median count.

b. For critical frequencies and virtual heights:

Values of foF2 (and foE near sunrise and sunset) missing because of E are counted as equal to or less than the lower limit of the recorder. Values of h'F2 (and h'E near sunrise and sunset) missing for this reason are counted as equal to or greater than the median. Other characteristics missing because of E are omitted from the median count. See CRPL-F38, page 9.

Values missing because of D are counted as equal to or greater than the upper limit of the recorder.

Values missing because of G are counted:
1. For foF2, as equal to or less than foF1.
2. For h'F2, as equal to or greater than the median.

Values missing because of W are counted:
1. For foF2, as equal to or less than the median when it is apparent that h'F2 is unusually high; otherwise, values missing because of W are omitted from the median count.
2. For h'F2, as equal to or greater than the median.

Values missing for any other reason are omitted from the median count.

c. For MUF factor (M-factors):

Values missing because of G or W are counted as equal to or less than the median.

Values missing for any other reason are omitted from the median count.

d. For sporadic E (Es):

Values of fEs missing because of G (no Es reflections observed, the equipment functioning normally otherwise) are counted as equal to or less than the median foE, or equal to or less than the lower frequency count of the recorder.

Values of fEs missing for any other reason, and values of h'Es missing for any reason at all are omitted from the median count.

Beginning with data for November 1945, doubtful monthly median values for ionospheric observations at Washington, D. C., are indicated by parentheses, in accordance with the practice already in use for doubtful hourly values. The following are the conventions used to determine whether or not a median value is doubtful:

1. If only four values or less are available, the data are considered insufficient and no median value is computed.

2. For the F2 layer, if only five to nine values are available, the median is considered doubtful. The E and F1 layers are so regular in their characteristics that, as long as there are at least five values, the median is not considered doubtful.

3. For all layers, if more than half of the values used to compute the median are doubtful (either doubtful or interpolated), the median is considered doubtful.

The same conventions are used by the CRPL in computing the medians from tabulations of daily and hourly data for stations other than Washington, beginning with the tables in IRPL-F18.

The tables and graphs of ionospheric data are correct for the values reported to the CRPL, but, because of variations in practice in the interpretation of records and scaling and manner of reporting of values, may at times give an erroneous conception of typical ionospheric characteristics at the station. Some of the errors are due to:

a. Differences in scaling records when spread echoes are present.

b. Omission of values when foF2 is less than or equal to foFl, leading to erroneously high values of monthly averages or median values.

c. Omission of values when critical frequencies are less than the lower frequency limit of the recorder, also leading to erroneously high values of monthly average or median values.

These effects were discussed on pages 6 and 7 of the previous F-series report IRPL-F5.

Ordinarily, a blank space in the fEs column of a table is the result of the fact that a majority of the readings for the month are below the lower limit of the recorder or less than the corresponding values of foE. Blank spaces at the beginning and end of columns of h'Fl, foFl, h'E, and foE are usually the result of diurnal variation in these characteristics. Complete absence of medians of h'Fl and foFl is usually the result of seasonal effects.

The dashed-line prediction curves of the graphs of ionospheric data are obtained from the predicted zero-muf contour charts of the CRPL-D series publications. The following points are worthy of note:

a. Predictions for individual stations used to construct the charts may be more accurate than the values read from the charts since some smoothing of the contours is necessary to allow for the longitude effect within a zone. Thus, inasmuch as the predicted contours are for the center of each zone, part of the discrepancy between the predicted and observed values as given in the F series may be caused by the fact that the station is not centrally located within the zone.

b. The final presentation of the predictions is dependent upon the latest available ionospheric and radio propagation data, as well as upon predicted sunspot number.

c. There is no indication on the graphs of the relative reliability of the data; it is necessary to consult the tables for such information.

The following predicted smoothed 12-month running-average Zürich sunspot numbers were used in constructing the contour charts:

| Month | Predicted Sunspot Number | | | | | |
|---|---|---|---|---|---|---|
| | 1950 | 1949 | 1948 | 1947 | 1946 | 1945 |
| December | | 108 | 114 | 126 | 85 | 38 |
| November | | 112 | 115 | 124 | 83 | 36 |
| October | 90 | 114 | 116 | 119 | 81 | 23 |
| September | 91 | 115 | 117 | 121 | 79 | 22 |
| August | 96 | 111 | 123 | 122 | 77 | 20 |
| July | 101 | 108 | 125 | 116 | 73 | |
| June | 103 | 108 | 129 | 112 | 67 | |
| May | 102 | 108 | 130 | 109 | 67 | |
| April | 101 | 109 | 133 | 107 | 62 | |
| March | 103 | 111 | 133 | 105 | 51 | |
| February | 103 | 113 | 133 | 90 | 46 | |
| January | 105 | 112 | 130 | 88 | 42 | |

## WORLD-WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 51 and figures 1 to 100 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

Commonwealth of Australia, Ionospheric Prediction Service of the Commonwealth Observatory:
- Brisbane, Australia
- Canberra, Australia
- Hobart, Tasmania

Australian Department of Supply and Shipping, Bureau of Mineral Resources, Geology and Geophysics:
- Watheroo, West Australia

French Ministry of Naval Armaments (Section for Scientific Research):
- Dakar, French West Africa
- Fribourg, Germany

National Laboratory of Radio-Electricity (French Ionospheric Bureau):
- Domont, France
- Poitiers, France

Institute for Ionospheric Research, Lindau Uber Northeim, Hannover, Germany:
- Lindau/Harz, Germany

The Royal Netherlands Meteorological Institute:
- De Bilt, Holland

All India Radio (Government of India), New Delhi, India:
- Bombay, India
- Delhi, India
- Madras, India
- Tiruchy (Tiruchirapalli), India

Radio Regulatory Commission, Tokyo, Japan:
- Akita, Japan
- Tokyo (Kokubunji), Japan
- Wakkanai, Japan
- Yamagawa, Japan

Christchurch Geophysical Observatory, New Zealand Department of Scientific and Industrial Research:
- Campbell I.
- Christchurch, New Zealand
- Rarotonga I.

Norwegian Defense Research Establishment, Kjeller per Lillestrom, Norway:
- Oslo, Norway

South African Council for Scientific and Industrial Research:
- Capetown, Union of South Africa
- Johannesburg, Union of South Africa

United States Army Signal Corps:
- Okinawa I.

National Bureau of Standards (Central Radio Propagation Laboratory):
- Baton Rouge, Louisiana (Louisiana State University)
- Boston, Massachusetts (Harvard University)
- Guam I.
- Huancayo, Peru (Institute Geofisico de Huancayo)
- Maui, Hawaii
- San Francisco, California (Stanford University)
- San Juan, Puerto Rico (University of Puerto Rico)
- Trinidad, British West Indies
- Washington, D. C.
- White Sands, New Mexico

## HOURLY IONOSPHERIC DATA AT WASHINGTON, D. C.

The data given in tables 52 to 63 follow the scaling practices given in the report IRPL-C61, "Report of International Radio Propagation Conference," pages 36 to 39, and the median values are determined by the conventions given above under "Symbols, Terminology, Conventions." Beginning with September 1949, the data are taken at a new location, Ft. Belvoir, Virginia.

## IONOSPHERIC STORMINESS AT WASHINGTON, D. C.

Table 64 presents ionosphere character figures for Washington, D. C., during October 1950, as determined by the criteria given in the report IRPL-R5, "Criteria for Ionospheric Storminess," together with Cheltenham, Maryland, geomagnetic K-figures, which are usually covariant with them.

## RADIO PROPAGATION QUALITY FIGURES

Table 65 gives provisional radio propagation quality figures for the North Atlantic and North Pacific areas, for 01 to 12 and 13 to 24 GCT, September 1950, compared with the CRPL daily radio disturbance warnings, which are primarily for the North Atlantic paths, the CRPL weekly radio propagation forecasts of probable disturbed periods, and the half-day Cheltenham, Maryland, geomagnetic K-figures.

The radio propagation quality figures are prepared from radio traffic and ionospheric data reported to the CRPL, in a manner basically the same as that described in IRPL-R31, "North Atlantic Radio Propagation Disturbances, October 1943 through October 1945," issued February 1, 1946. The scale conversions for each report are revised for use with the data beginning January 1948, and statistical weighting replaces what was, in effect, subjective weighting. Separate master distribution curves of the type described in IRPL-R31 were derived for the part of 1946 covered by each report; data received only since 1946 are compared with the master curve for the period of the available data. A report whose distribution is the same as the master is thereby converted linearly to the Q-figure scale. Each report is given a statistical weight which is the reciprocal

of the departure from linearity. The half-daily radio propagation quality figure, beginning January 1948, is the weighted mean of the reports received for that period.

These radio propagation quality figures give a consensus of opinion of actual radio propagation conditions as reported by the half day over the two general areas. It should be borne in mind, however, that though the quality may be disturbed according to the CRPL scale, the cause of the disturbance is not necessarily known. There are many variables that must be considered. In addition to ionospheric storminess itself as the cause, conditions may be reported as disturbed because of seasonal characteristics such as are particularly evident in the pronounced day and night contrast over North Pacific paths during the winter months, or because of improper frequency usage for the path and time of day in question. Insofar as possible, frequency usage is included in rating the reports. Where the actual frequency is not shown in the report to the CRPL, it has been assumed that the report is made on the use of optimum working frequencies for the path and time of day in question. Since there is a possibility that all disturbance shown by the quality figures is not due to ionospheric storminess alone, care should be taken in using the quality figures in research correlations with solar, auroral, geomagnetic, or other data. Nevertheless, these quality figures do reflect a consensus of opinion of actual radio propagation conditions as found on any one half day in either of the two general areas.

## RELATIVE SUNSPOT NUMBERS

Table 66 presents the daily American relative sunspot number, $R_A$, computed from observations communicated to CRPL by observers in America and abroad. Beginning with the observations for January 1948, a new method of reduction of observations is employed such that each observer is assigned a scale-determining "observatory coefficient," ultimately referred to Zürich observations in a standard period, December 1944 to September 1945, and a statistical weight, the reciprocal of the variance of the observatory coefficient. The daily numbers listed in the table are the weighted means of <u>all</u> observations received for each day. Details of the procedure are given in the Publication of the Astronomical Society of the Pacific, issued February 1949, in an article entitled "Reduction of Sunspot-Number Observations." The American relative sunspot number computed in this way is designated $R_A$. It is noted that a number of observatories abroad, including the Zürich observatory, are included in $R_A$. The scale of $R_A$ was referred specifically to that of the Zürich relative sunspot numbers in the standard comparison period; since that time, $R_A$ is influenced by the Zürich observations only in that Zürich proves to be a consistent observer and receives a high statistical weight. In addition this table lists the daily provisional Zürich sunspot numbers, $R_Z$.

# OBSERVATIONS OF THE SOLAR CORONA

Tables 67 through 69 give the observations of the solar corona during October 1950 obtained at Climax, Colorado, by the High Altitude Observatory of Harvard University and the University of Colorado. Tables 70 through 72 list the coronal observations obtained at Sacramento Peak, New Mexico, during October 1950, derived by the High Altitude Observatory from spectrograms taken by Harvard University as a part of its performance of an Air Materiel Command research and development contract administered by the Air Force Cambridge Research Laboratories. The data are listed separately for east and west limbs at 5-degree intervals of position angle north and south of the Solar Equator at the limb. The time of observation is given to the nearest tenth of a day, GCT.

Table 67 gives the intensities of the green (5303A) line of the emission spectrum of the solar corona; table 68 gives similarly the intensities of the first red (6374A) coronal line; and table 69, the intensities of the second red (6702A) coronal line; all observed at Climax in October 1950.

Table 70 gives the intensities of the green (5303A) coronal line; table 71, the intensities of the first red (6374A) coronal line; and table 72, the intensities of the second red (6702A) coronal line; all observed at Sacramento Peak in October 1950.

The following symbols are used in tables 67 through 72: a, observation of low weight; -, corona not visible; and X, position angle not included in plate estimates.

## OBSERVATIONS OF SOLAR FLARES

Table 73 gives the preliminary record of solar flares reported to the CRPL. These reports are communicated on a rapid schedule at the sacrifice of detailed accuracy. Definitive and complete records are published later in the Quarterly Bulletin of Solar Activity, I.A.U., in various observatory publications, and elsewhere. The present listing serves to identify and roughly describe the phenomena observed. Details should be sought from the reporting observatory.

Reporting directly to the CRPL are the following observatories: Mt. Wilson, McMath-Hulbert, U.S. Naval, Wendelstein, Kanzel, and High Altitude at Boulder, Colorado. The remainder report to Meudon (Paris), and the data are taken from the Paris URSIgram broadcast, monitored fairly regularly by the CRPL. The data on solar flares reported from Boulder, Colorado are provided by Harvard University as the result of work undertaken on an Air Materiel Command Research and Development Contract administered by the Air Force Cambridge Research Laboratories.

The table lists for each flare the reporting observatory, date, times of beginning and ending of observation, duration (when known), total area (corrected for foreshortening), and heliographic coordinates. For the maximum phase of the flare is given the time, intensity, area relative to the total area, and the importance. The column "SID observed" is to indicate when a sudden ionosphere disturbance, noted elsewhere in these reports, occurred at the time of a flare. Times are in Universal Time (GCT).

## INDICES OF GEOMAGNETIC ACTIVITY

Table 74 lists various indices of geomagnetic activity based on data from magnetic observatories widely distributed throughout the world. The indices are: (1) preliminary mean 3-hourly K-indices, Kw; (2) preliminary international character-figures, C; (3) geomagnetic planetary three-hour-range indices, Kp; (4) magnetically selected quiet and disturbed days.

Kw is the arithmetic mean of the K-indices from all reporting observatories for each three hours of the Greenwich day, on a scale 0 (very quiet) to 9 (extremely disturbed). The C-figure is the arithmetic mean of the subjective classification by all observatories of

each day's magnetic activity on a scale of 0 (quiet) to 2 (storm). The magnetically quiet and disturbed days are selected by the international scheme outlined on pages 219-227 in the December 1943 issue of Terrestrial Magnetism and Atmospheric Electricity.

Kp is the mean standardized K-index from 11 observatories between geomagnetic latitudes 47 and 63 degrees. The scale is 0 to 9, expressed in thirds of a unit, e.g., 5- is 4 2/3, 5o is 5 0/3, and 5 + is 5 1/3. This planetary index is designed to measure solar particle-radiation by its magnetic effects, specifically to meet the needs of research workers in the ionospheric field. A complete description of Kp has appeared in Bulletin 12b, "Geomagnetic Indices C and K, 1948," published in Washington, D. C., 1949, by the Association of Terrestrial Magnetism and Electricity, International Union of Geodesy and Geophysics. Tables of Kp for 1945-48 are in Bulletin 12b; for 1940-44 and 1949, in these CRPL-F reports, F65-67; for 1950, monthly in F68 and following issues. Current tables are also published quarterly in the Journal of Geophysical Research along with data on sudden commencements (sc) and solar flare effects (sfe).

The Committee on Characterization of Magnetic Disturbance, ATME, IUGG, has kindly supplied this table. The Meteorological Office, De Bilt, Holland, collects the data and compiles Kw, C and selected days. The Chairman of the Committee computes the planetary index.

## SUDDEN IONOSPHERE DISTURBANCES

Table 75 lists the sudden ionosphere disturbances observed at Fort Belvoir, Virginia, October 1950.

# TABLES OF IONOSPHERIC DATA

Table 1

Washington, D. C. (38.7°N, 77.1°W) — October 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 290 | (3.7) | | | | | | 2.8 |
| 01 | 290 | (3.6) | | | | | | (2.9) |
| 02 | 280 | 3.4 | | | | | | 2.9 |
| 03 | 280 | 3.2 | | | | | | 3.0 |
| 04 | 280 | 2.7 | | | | | | 3.0 |
| 05 | 280 | 2.4 | | | | | | 2.9 |
| 06 | 280 | 3.0 | | | --- | --- | | 3.0 |
| 07 | 240 | 5.6 | | | (120) | 2.0 | | 3.3 |
| 08 | 240 | 7.0 | 230 | --- | 110 | 2.5 | | 3.3 |
| 09 | 260 | 7.7 | 220 | 4.1 | 110 | 2.8 | | 3.2 |
| 10 | 260 | 7.8 | 210 | 4.3 | 100 | 3.0 | | 3.2 |
| 11 | 270 | 8.2 | 200 | 4.4 | 100 | 3.0 | | 3.1 |
| 12 | 270 | 9.2 | 210 | 4.6 | 100 | 3.1 | | 3.1 |
| 13 | 270 | 9.2 | 210 | 4.4 | (100) | 3.1 | | 3.0 |
| 14 | 270 | 9.1 | 220 | 4.4 | 100 | 3.0 | | 3.0 |
| 15 | 260 | 9.2 | 230 | 4.1 | 110 | 2.7 | | 3.1 |
| 16 | 240 | 8.8 | 240 | --- | 110 | 2.4 | | 3.2 |
| 17 | 230 | (8.1) | --- | --- | (120) | 1.8 | | (3.2) |
| 18 | 220 | (7.1) | | | --- | --- | | (3.2) |
| 19 | 230 | 5.7 | | | | | | 3.1 |
| 20 | 250 | 4.8 | | | | | | 3.0 |
| 21 | 280 | 4.2 | | | | | | 2.9 |
| 22 | 300 | (3.9) | | | | | | (2.8) |
| 23 | 300 | (3.8) | | | | | | (2.8) |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 15 seconds.

Table 2

Oslo, Norway (60.0°N, 11.0°E) — September 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 320 | 2.8 | | | | | | 2.8 |
| 01 | 310 | (2.6) | | | | | 2.0 | (2.7) |
| 02 | 320 | 2.4 | | | | | 2.0 | 2.8 |
| 03 | 310 | 2.4 | | | | | 1.7 | 2.8 |
| 04 | 300 | 2.3 | | | | | 2.0 | 2.8 |
| 05 | 290 | 2.5 | | | --- | --- | | 3.0 |
| 06 | 250 | 3.4 | --- | --- | 130 | 1.8 | 1.7 | 3.2 |
| 07 | 260 | 4.0 | 230 | 3.2 | 115 | 2.1 | 2.1 | 3.2 |
| 08 | 300 | 4.4 | 220 | 3.7 | 115 | 2.4 | 2.5 | 3.2 |
| 09 | 335 | 4.9 | 215 | 4.0 | 110 | 2.6 | 2.8 | 3.1 |
| 10 | 330 | 5.2 | 210 | 4.1 | 105 | 2.8 | 3.0 | 3.1 |
| 11 | 310 | 5.8 | 205 | 4.2 | 105 | 2.9 | 3.0 | 3.2 |
| 12 | 300 | 6.1 | 205 | 4.2 | 105 | 3.0 | 3.1 | 3.2 |
| 13 | 300 | 5.9 | 205 | 4.2 | 105 | 2.9 | 2.9 | 3.2 |
| 14 | 295 | 6.0 | 210 | 4.1 | 105 | 2.9 | 3.0 | 3.2 |
| 15 | 280 | 5.9 | 215 | 4.0 | 110 | 2.7 | 2.9 | 3.2 |
| 16 | 265 | 5.8 | 225 | 3.8 | 110 | 2.5 | 2.6 | 3.2 |
| 17 | 260 | 5.8 | 235 | 3.3 | 115 | 2.2 | 2.5 | 3.1 |
| 18 | 255 | 6.0 | 240 | 2.8 | 140 | 2.0 | 2.4 | 3.2 |
| 19 | 250 | (5.8) | | | --- | --- | 2.4 | 3.0 |
| 20 | 250 | (5.4) | | | | | | 3.1 |
| 21 | 255 | (4.3) | | | | | | 3.1 |
| 22 | 270 | 3.2 | | | | | 2.1 | 3.0 |
| 23 | 295 | (2.8) | | | | | | 2.8 |

Time: 15.0°E.
Sweep: 1.3 Mc to 14.0 Mc in 8 minutes, automatic operation.

Table 3

Boston, Massachusetts (42.4°N, 71.2°W) — September 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 290 | 3.3 | | | | | | 2.9 |
| 01 | 280 | 3.2 | | | | | | 2.9 |
| 02 | 290 | 2.8 | | | | | | 2.9 |
| 03 | 280 | (2.7) | | | | | | (2.9) |
| 04 | 280 | (2.4) | | | | | | (2.9) |
| 05 | 300 | 2.3 | | | | | | 3.0 |
| 06 | 240 | 4.2 | --- | --- | 125 | 1.9 | | 3.2 |
| 07 | 240 | 5.1 | 230 | 3.4 | 120 | 2.4 | | 3.3 |
| 08 | 270 | 5.6 | 220 | 3.8 | 120 | 2.7 | | 3.3 |
| 09 | 280 | 6.1 | 210 | 4.0 | 120 | 2.9 | | 3.3 |
| 10 | 300 | 6.5 | 200 | 4.3 | 120 | 3.1 | | 3.2 |
| 11 | 300 | 6.4 | 200 | 4.4 | 120 | 3.2 | | 3.2 |
| 12 | 300 | 6.6 | 200 | 4.5 | 120 | 3.1 | | 3.1 |
| 13 | 300 | 6.6 | 220 | 4.4 | 120 | 3.1 | | 3.1 |
| 14 | 300 | 6.8 | 220 | 4.3 | 120 | 3.0 | | 3.2 |
| 15 | 280 | 6.8 | 220 | 4.0 | 120 | 2.8 | | 3.1 |
| 16 | 270 | 6.7 | 230 | 3.8 | 120 | 2.7 | | 3.1 |
| 17 | 240 | 6.7 | 240 | 3.3 | 130 | 2.3 | | 3.2 |
| 18 | 230 | 8.8 | | | --- | --- | | 3.1 |
| 19 | 230 | 6.5 | | | | | | 3.1 |
| 20 | 240 | 5.5 | | | | | | 3.0 |
| 21 | 260 | 4.7 | | | | | | 3.0 |
| 22 | 280 | 3.8 | | | | | | 2.9 |
| 23 | 290 | 3.8 | | | | | | 2.9 |

Time: 75.0°W.
Sweep: 0.5 Mc to 18.0 Mc in 1 minute.

Table 4

San Francisco, California (37.4°N, 122.2°W) — September 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 300 | 3.6 | | | | | | 2.7 |
| 01 | 320 | 3.6 | | | | | | 2.7 |
| 02 | 320 | 3.5 | | | | | | 2.8 |
| 03 | 300 | 3.6 | | | | | | 2.8 |
| 04 | 300 | 3.6 | | | | | | 2.8 |
| 05 | 290 | 3.5 | | | | | 2.2 | 2.9 |
| 06 | 270 | 4.1 | --- | --- | --- | --- | 2.6 | 3.0 |
| 07 | 270 | 5.6 | 240 | 3.6 | 120 | 2.4 | 2.2 | 3.2 |
| 08 | 290 | 6.4 | 220 | 4.1 | 120 | 2.8 | | 3.1 |
| 09 | 280 | 6.6 | 210 | 4.4 | 110 | 3.1 | 3.7 | 3.2 |
| 10 | 300 | 6.6 | 200 | 4.6 | 110 | 3.4 | | 3.0 |
| 11 | 330 | 7.4 | 200 | 4.7 | 110 | 3.6 | | 2.9 |
| 12 | 310 | 7.5 | 200 | 4.8 | 120 | 3.6 | | 2.9 |
| 13 | 310 | 7.6 | 220 | 4.8 | 110 | 3.7 | | 3.0 |
| 14 | 300 | 7.8 | 220 | 4.7 | 110 | --- | | 3.0 |
| 15 | 280 | 7.7 | 230 | 4.5 | 120 | --- | | 3.1 |
| 16 | 270 | 7.4 | 240 | 4.2 | 120 | 2.8 | | 3.2 |
| 17 | 250 | 7.3 | 240 | 3.3 | 120 | 2.4 | | 3.2 |
| 18 | 240 | 6.2 | | | | | | 3.3 |
| 19 | 240 | 5.8 | | | | | 2.2 | 3.2 |
| 20 | 240 | 4.9 | | | | | | 3.1 |
| 21 | 260 | 4.2 | | | | | | 2.9 |
| 22 | 280 | 3.8 | | | | | | 2.8 |
| 23 | 300 | 3.8 | | | | | | 2.8 |

Time: 120.0°W.
Sweep: 1.3 Mc to 18.0 Mc in 4 minutes.

Table 5

White Sands, New Mexico (32.3°N, 106.5°W) — September 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 290 | 3.9 | | | | | 2.0 | 2.7 |
| 01 | 300 | 3.9 | | | | | | 2.7 |
| 02 | 280 | 3.9 | | | | | | 2.7 |
| 03 | 270 | 3.9 | | | | | 2.2 | 2.8 |
| 04 | 280 | 3.9 | | | | | 2.3 | 2.8 |
| 05 | 270 | 3.8 | | | | | 2.5 | 2.8 |
| 06 | 260 | 4.8 | | | 120 | --- | 3.4 | 3.1 |
| 07 | 250 | 8.4 | 230 | --- | 110 | (2.4) | 4.6 | 3.2 |
| 08 | 260 | 6.8 | 220 | 4.3 | 110 | (2.8) | 4.7 | 3.2 |
| 09 | 290 | 8.9 | 220 | (4.6) | 110 | (3.2) | 4.8 | 3.1 |
| 10 | 320 | 7.1 | 210 | (4.8) | 110 | (3.4) | 4.9 | 2.9 |
| 11 | 320 | 7.4 | 210 | (4.9) | 110 | (3.6) | 5.0 | 2.8 |
| 12 | 320 | 8.1 | 210 | 5.0 | 110 | 3.6 | | 2.8 |
| 13 | 320 | 8.7 | 220 | 4.9 | 110 | 3.8 | 4.5 | 2.8 |
| 14 | 300 | 8.9 | 220 | 4.8 | 110 | 3.4 | | 3.0 |
| 15 | 290 | 9.0 | 230 | 4.6 | 110 | 3.2 | 3.8 | 3.0 |
| 16 | 280 | 8.8 | 230 | --- | 110 | 2.8 | 3.5 | 3.1 |
| 17 | 250 | 8.7 | 240 | --- | 110 | 2.4 | 3.3 | 3.2 |
| 18 | 230 | 7.4 | --- | --- | --- | --- | 2.6 | 3.2 |
| 19 | 220 | 6.1 | | | | | 2.2 | 3.1 |
| 20 | 230 | 5.3 | | | | | 2.2 | 3.0 |
| 21 | 260 | 4.3 | | | | | | 2.8 |
| 22 | 280 | 4.0 | | | | | | 2.8 |
| 23 | 280 | 3.9 | | | | | 2.3 | 2.7 |

Time: 105.0°W.
Sweep: 0.8 Mc to 14.0 Mc in 2 minutes.

Table 6

Baton Rouge, Louisiana (30.5°N, 91.2°W) — September 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 330 | 4.0 | | | | | | 2.8 |
| 01 | 330 | 4.0 | | | | | | 2.8 |
| 02 | 330 | 4.0 | | | | | | 2.9 |
| 03 | 320 | 4.0 | | | | | | 2.9 |
| 04 | 320 | 3.8 | | | | | | 2.9 |
| 05 | 300 | 3.8 | | | | | | 2.9 |
| 06 | 290 | 4.9 | | | | | | 3.2 |
| 07 | 270 | 6.8 | 250 | --- | 120 | 2.6 | | 3.2 |
| 08 | 280 | 7.2 | 230 | --- | 120 | 2.9 | | 3.2 |
| 09 | 290 | 7.0 | 230 | 4.1 | 120 | (3.2) | | 3.0 |
| 10 | 320 | 7.3 | 230 | 4.6 | 120 | (3.5) | | 3.0 |
| 11 | 330 | 8.0 | 230 | 4.9 | --- | (3.5) | | 2.9 |
| 12 | 340 | 8.4 | 240 | 4.8 | --- | --- | | 2.9 |
| 13 | 330 | 8.7 | 250 | 4.9 | --- | (3.5) | | 2.8 |
| 14 | 330 | 9.2 | 260 | 4.8 | --- | (3.5) | | 2.9 |
| 15 | 320 | 9.4 | 250 | --- | 120 | (3.3) | | 2.9 |
| 16 | 300 | 9.0 | 250 | --- | 120 | (3.0) | | 3.0 |
| 17 | 270 | 9.0 | 270 | --- | 130 | (2.5) | | 3.1 |
| 18 | 250 | 8.4 | | | | | | 3.1 |
| 19 | 250 | 7.0 | | | | | | 3.1 |
| 20 | 270 | 5.5 | | | | | | 3.0 |
| 21 | 300 | 4.6 | | | | | | 2.9 |
| 22 | 310 | 4.1 | | | | | | 2.9 |
| 23 | 320 | 4.0 | | | | | | 2.8 |

Time: 90.0°W.
Sweep: 2.12 Mc to 14.1 Mc in 5 minutes, automatic operation.

Table 7

Okinawa I. (26.3°N, 127.7°E) September 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 300 | 5.9 | | | | | 2.2 | 2.8 |
| 01 | 290 | 5.6 | | | | | 2.0 | 2.9 |
| 02 | 260 | 6.4 | | | | | | 2.9 |
| 03 | 250 | 4.8 | | | | | | 3.0 |
| 04 | 220 | 4.2 | | | | | | 3.3 |
| 05 | 230 | 3.2 | | | | | | 3.1 |
| 06 | 260 | 3.7 | | | | | 2.1 | 3.0 |
| 07 | 240 | 6.8 | | | 120 | 2.2 | 2.9 | 3.5 |
| 08 | 240 | 7.5 | 230 | --- | 110 | 2.5 | 4.0 | 3.4 |
| 09 | 260 | 7.8 | 220 | --- | 110 | 3.0 | 4.1 | 3.4 |
| 10 | 270 | 7.9 | 210 | 5.0 | 110 | 3.4 | 4.2 | 3.2 |
| 11 | 310 | 9.0 | 200 | --- | 110 | 3.5 | 4.3 | 2.9 |
| 12 | 310 | 10.5 | 210 | 5.1 | 110 | 3.7 | 4.9 | 2.9 |
| 13 | 310 | 11.4 | 220 | 5.0 | 120 | 3.6 | 4.2 | 3.0 |
| 14 | 300 | 12.2 | 220 | 4.9 | 120 | 3.5 | 4.2 | 3.0 |
| 16 | 300 | 11.8 | 230 | 4.8 | 110 | 3.4 | 2.6 | 3.1 |
| 16 | 280 | 11.8 | 230 | --- | 110 | 3.0 | 3.9 | 3.1 |
| 17 | 270 | 11.6 | 330 | --- | 110 | 2.6 | 3.8 | 3.2 |
| 18 | 240 | 10.9 | | | 120 | --- | 3.7 | 3.3 |
| 19 | 230 | 10.3 | | | | | 4.0 | 3.3 |
| 20 | 220 | 8.4 | | | | | 3.3 | 3.1 |
| 21 | 240 | 7.0 | | | | | 2.8 | 2.9 |
| 22 | 280 | 6.2 | | | | | | 2.8 |
| 23 | 300 | 6.2 | | | | | 2.1 | 2.8 |

Time: 135.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 15 seconds, automatic operation.

Table 8

Maui, Hawaii (20.8°N, 156.5°W) September 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 270 | 5.0 | | | | | | 2.8 |
| 01 | 260 | 5.2 | | | | | | 3.0 |
| 02 | 230 | 4.8 | | | | | | 3.2 |
| 03 | 230 | 4.0 | | | | | | 3.2 |
| 04 | 250 | 3.0 | | | | | | 3.0 |
| 05 | 270 | 2.8 | | | | | | 3.0 |
| 06 | 270 | 3.4 | | | --- | --- | 1.6 | 3.1 |
| 07 | 230 | 6.4 | --- | --- | 110 | 2.3 | 4.0 | 3.4 |
| 08 | 250 | 7.4 | 220 | --- | 110 | 2.8 | 6.6 | 3.3 |
| 09 | 290 | 8.0 | 210 | 4.8 | 110 | 3.2 | 6.4 | 2.9 |
| 10 | 320 | 9.2 | 210 | 5.0 | 110 | 3.4 | 4.8 | 2.8 |
| 11 | 340 | 10.1 | 200 | 5.0 | 110 | 3.5 | 4.5 | 2.8 |
| 12 | 340 | 11.0 | 200 | 5.0 | 110 | 3.6 | 4.8 | 2.8 |
| 13 | 330 | 12.0 | 210 | 6.0 | 110 | 3.6 | 4.6 | 2.9 |
| 14 | 310 | 12.6 | 210 | 5.0 | 100 | 3.5 | 4.6 | 3.0 |
| 15 | 290 | 13.1 | 220 | 4.8 | 110 | 3.3 | 4.4 | 3.1 |
| 16 | 270 | 13.2 | 220 | 4.5 | 100 | 3.0 | 4.4 | 3.2 |
| 17 | 240 | 12.4 | 230 | --- | 110 | 2.4 | 4.0 | 3.3 |
| 18 | 220 | 11.2 | | | --- | --- | 3.9 | 3.4 |
| 19 | 220 | 8.4 | | | | | 3.9 | 3.2 |
| 20 | 230 | 7.2 | | | | | 3.8 | 3.0 |
| 21 | 250 | (6.3) | | | | | 2.4 | (2.7) |
| 22 | 290 | 5.2 | | | | | 2.3 | 2.7 |
| 23 | 280 | 5.2 | | | | | 1.8 | 2.8 |

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 15 seconds.

Table 9

San Juan, Puerto Rico (18.4°N, 66.0°W) September 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 270 | 4.9 | | | | | | 2.7 |
| 01 | 250 | 5.2 | | | | | | 2.7 |
| 02 | 240 | 5.2 | | | | | | 2.8 |
| 03 | 230 | 4.9 | | | | | | 2.8 |
| 04 | (240) | 4.3 | | | | | | 2.9 |
| 05 | --- | 4.0 | | | | | | 2.8 |
| 06 | (240) | 4.1 | | | | | | 2.7 |
| 07 | 230 | 6.6 | | | | | | 3.0 |
| 08 | 250 | 7.0 | | --- | | 3.2 | | 3.0 |
| 09 | 260 | 7.6 | | 4.9 | | --- | | 2.9 |
| 10 | 290 | 8.3 | | 4.9 | | 3.6 | | 2.8 |
| 11 | 290 | 9.3 | | 5.0 | | (3.7) | 3.8 | 2.8 |
| 12 | 290 | 10.0 | | 5.0 | | --- | | 2.8 |
| 13 | 290 | 10.7 | | 4.9 | | (3.7) | | 2.8 |
| 14 | 280 | 10.8 | | 4.9 | | (3.6) | 3.7 | 2.8 |
| 15 | 280 | 10.8 | | 4.8 | | 3.5 | 4.4 | 2.9 |
| 16 | 270 | 10.7 | | 4.7 | | (3.3) | 4.5 | 2.9 |
| 17 | 240 | 10.1 | | --- | | --- | 3.9 | 2.9 |
| 18 | 230 | (9.2) | | | | | | (2.9) |
| 19 | 230 | (8.2) | | | | | | (2.8) |
| 20 | 240 | (7.1) | | | | | | (2.8) |
| 21 | 240 | (5.8) | | | | | | (2.8) |
| 22 | 260 | (5.0) | | | | | | (2.7) |
| 23 | 260 | (4.8) | | | | | | (2.7) |

Time: 60.0°W.
Sweep: 2.8 Mc to 13.0 Mc in 9 minutes, automatic operation; supplemented by manual operation.

Table 10

Guam I. (13.6°N, 144.9°E) September 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 280 | 9.0 | | | | | 1.7 | 3.0 |
| 01 | 250 | (9.5) | | | | | | (3.2) |
| 02 | 230 | (7.6) | | | | | | (3.3) |
| 03 | 220 | (5.4) | | | | | | (3.2) |
| 04 | 240 | 4.3 | | | | | 1.4 | 3.2 |
| 06 | 250 | 3.4 | | | | | 1.7 | 3.3 |
| 06 | 260 | 3.5 | | | --- | --- | 2.0 | 3.0 |
| 07 | 240 | 7.1 | --- | --- | 120 | 2.3 | 3.9 | 3.2 |
| 08 | 280 | 8.6 | 220 | --- | 110 | (2.8) | 4.2 | 3.0 |
| 09 | 300 | 9.8 | 210 | --- | 110 | (3.2) | 4.7 | 2.8 |
| 10 | 320 | 10.0 | 200 | --- | 110 | (3.4) | 4.4 | 2.6 |
| 11 | 340 | 10.2 | 210 | 4.9 | 110 | 3.5 | 4.6 | 2.4 |
| 12 | 340 | 10.4 | 200 | (4.9) | 110 | (3.6) | 4.0 | 2.4 |
| 13 | 340 | 11.1 | 210 | (4.9) | 110 | (3.6) | 4.4 | 2.5 |
| 14 | 340 | 11.8 | 220 | (4.8) | 120 | (3.6) | 3.9 | 2.6 |
| 15 | 320 | 12.2 | 230 | --- | 120 | (3.3) | 4.2 | 2.8 |
| 18 | 300 | 13.0 | 230 | --- | 120 | (3.1) | 4.3 | 2.9 |
| 17 | 280 | 12.7 | 230 | --- | 120 | --- | 4.3 | 2.9 |
| 18 | 260 | 12.4 | | | | | 4.1 | 2.8 |
| 19 | 290 | 11.8 | | | | | 3.6 | 2.7 |
| 20 | 280 | 11.5 | | | | | 2.9 | 2.8 |
| 21 | 260 | (11.0) | | | | | 3.5 | (2.9) |
| 22 | 250 | (10.2) | | | | | 3.1 | (2.8) |
| 23 | 260 | (10.1) | | | | | 2.2 | (2.9) |

Time: 150.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 16 seconds.

Table 11

Trinidad, Brit. West Indies (10.6°N, 61.2°W) September 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 250 | 6.6 | | | | | | 3.2 |
| 01 | 240 | 6.0 | | | | | | 3.2 |
| 02 | 230 | 5.5 | | | | | | 3.3 |
| 03 | 240 | 4.6 | | | | | | 3.2 |
| 04 | 240 | 4.6 | | | | | | 3.3 |
| 05 | 250 | 4.0 | | | | | | 3.2 |
| 08 | 240 | 4.6 | | | --- | --- | 3.0 | 3.4 |
| 07 | 220 | 6.8 | | | 100 | 2.5 | 3.0 | 3.6 |
| 08 | 230 | 7.3 | 200 | 4.6 | 100 | 3.0 | 3.6 | 3.5 |
| 09 | 270 | 8.2 | 200 | 4.9 | 100 | 3.4 | 4.3 | 3.3 |
| 10 | 280 | 9.4 | 200 | 5.0 | 100 | 3.6 | 4.6 | 3.1 |
| 11 | 300 | 10.2 | 200 | 5.1 | 100 | 3.7 | 4.8 | 3.1 |
| 12 | 280 | 11.4 | 200 | 5.0 | 100 | 3.8 | 4.8 | 3.2 |
| 13 | 280 | 11.8 | 200 | 6.0 | 100 | 3.7 | 4.9 | 3.1 |
| 14 | 280 | 12.2 | 200 | 5.0 | 100 | 3.6 | 4.8 | 3.2 |
| 15 | 260 | 12.1 | 210 | 4.8 | 100 | 3.4 | 5.0 | 3.3 |
| 16 | 260 | 12.0 | 220 | 4.5 | 100 | 3.0 | 5.0 | 3.3 |
| 17 | 240 | 11.2 | 220 | --- | 100 | 2.5 | 4.4 | 3.4 |
| 18 | 220 | 10.1 | | | --- | --- | 3.6 | 3.3 |
| 19 | 220 | 9.0 | | | | | 3.0 | 3.2 |
| 20 | 230 | 8.6 | | | | | | 3.2 |
| 21 | 240 | 7.7 | | | | | | 3.1 |
| 22 | 260 | 7.2 | | | | | | 3.0 |
| 23 | 260 | 6.8 | | | | | | 3.0 |

Time: 60.0°W.
Sweep: 1.2 Mc to 19.5 Mc, manual operation.

Table 12

Huancayo, Peru (12.0°S, 75.3°W) September 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 220 | 8.3 | | | | | 3.1 | 3.1 |
| 01 | 230 | 7.2 | | | | | 2.9 | 3.2 |
| 02 | 240 | 5.8 | | | | | 3.1 | 3.2 |
| 03 | 240 | 6.2 | | | | | 3.1 | 3.2 |
| 04 | 260 | 4.6 | | | | | 3.1 | 3.2 |
| 05 | 280 | 3.8 | | | | | 3.3 | 3.1 |
| 06 | 270 | 5.6 | | | 110 | 1.7 | 4.3 | 3.0 |
| 07 | 240 | 8.0 | 230 | --- | 100 | 2.6 | 7.9 | 3.1 |
| 08 | 300 | 9.3 | 220 | 4.8 | 110 | (3.0) | 12.0 | 2.8 |
| 09 | 310 | 9.7 | 210 | 4.8 | 110 | --- | 12.0 | 2.6 |
| 10 | 320 | 9.0 | 210 | 4.8 | 110 | --- | 12.0 | 2.6 |
| 11 | 340 | 8.5 | 210 | 4.9 | 110 | --- | 12.2 | 2.6 |
| 12 | 350 | 8.6 | 210 | 5.0 | 110 | --- | 12.0 | 2.6 |
| 13 | 330 | 8.9 | 200 | 4.8 | 110 | --- | 12.1 | 2.6 |
| 14 | 320 | 9.0 | 200 | 4.7 | 110 | --- | 12.0 | 2.6 |
| 15 | 310 | 9.0 | 210 | 4.6 | 110 | --- | 12.0 | 2.4 |
| 16 | 300 | 9.2 | 220 | --- | 110 | 2.7 | 11.9 | 2.6 |
| 17 | 260 | 9.2 | | | 110 | 2.2 | 8.4 | 2.5 |
| 18 | 290 | 9.0 | | | 110 | --- | 3.0 | 2.6 |
| 19 | 330 | 8.5 | | | | | 2.6 | 2.5 |
| 20 | 300 | 8.7 | | | | | 2.8 | 2.6 |
| 21 | 240 | 8.9 | | | | | 3.1 | 2.8 |
| 22 | 230 | 8.9 | | | | | 3.2 | 3.0 |
| 23 | 220 | 8.8 | | | | | 3.1 | 3.2 |

Time: 75.0°W.
Sweep: 16.0 Mc to 0.6 Mc in 15 minutes, automatic operation.

Table 13

DeBilt, Holland (52.1°N, 5.2°E) August 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 280 | 4.4 | | | | | 2.6 | 2.9 |
| 01 | 270 | 4.0 | | | | | 2.7 | 2.9 |
| 02 | 270 | 3.9 | | | | | 2.9 | 3.0 |
| 03 | 260 | 3.5 | | | | | 2.9 | 2.9 |
| 04 | 260 | 3.2 | | | | | 3.0 | 3.0 |
| 05 | 220 | 4.3 | --- | --- | 100 | 1.7 | 3.4 | 3.2 |
| 06 | 280 | 5.3 | 200 | 3.6 | 100 | 2.3 | 4.3 | 3.2 |
| 07 | 290 | 5.9 | 200 | 3.9 | 100 | 2.6 | 4.1 | 3.2 |
| 08 | 280 | 6.2 | 200 | 4.3 | 100 | 3.0 | 4.4 | 3.3 |
| 09 | 290 | 6.3 | 200 | 4.5 | 100 | 3.2 | 4.8 | 3.2 |
| 10 | 300 | 8.1 | 200 | 4.6 | 100 | 3.3 | 4.5 | 3.2 |
| 11 | 300 | 6.2 | 200 | 4.7 | 95 | 3.3 | 4.6 | 3.2 |
| 12 | 300 | 6.2 | 200 | 4.7 | 100 | 3.4 | 4.6 | 3.2 |
| 13 | 300 | 6.3 | 200 | 4.7 | 100 | 3.4 | 3.6 | 3.2 |
| 14 | 300 | 6.3 | 200 | 4.6 | 100 | 3.2 | 3.8 | 3.2 |
| 15 | 290 | 8.4 | 200 | 4.5 | 100 | 3.1 | 3.4 | 3.2 |
| 16 | 280 | 6.4 | 200 | 4.1 | 100 | 2.8 | 3.5 | 3.2 |
| 17 | 260 | 6.9 | 210 | 3.8 | 100 | 2.4 | 3.6 | 3.2 |
| 18 | 240 | 6.8 | 220 | 2.9 | 105 | 2.0 | 3.4 | 3.2 |
| 19 | 220 | 7.5 | | | --- | --- | 3.2 | 3.2 |
| 20 | 210 | 7.3 | | | | | 2.8 | 3.2 |
| 21 | 210 | 8.6 | | | | | 2.7 | 3.2 |
| 22 | 230 | 5.9 | | | | | 2.9 | 3.0 |
| 23 | 230 | 4.8 | | | | | 2.8 | 3.0 |

Time: 0.0°.
Sweep: 1.4 Mc to 16.0 Mc in 7 minutes, automatic operation.

Table 14

Lindau/Harz, Germany (51.6°N, 10.1°E) August 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 290 | 5.0 | | | | | 2.5 | 2.7 |
| 01 | 290 | 4.6 | | | | | 2.6 | 2.7 |
| 02 | 280 | 4.5 | | | | | 2.8 | 2.7 |
| 03 | 280 | 3.9 | | | | | 2.7 | 2.8 |
| 04 | 280 | 3.8 | | | --- | E | 2.8 | 2.8 |
| 05 | 270 | 3.8 | --- | --- | --- | E | 3.0 | 3.0 |
| 06 | 260 | 4.8 | 240 | --- | 100 | 2.0 | 3.4 | 3.0 |
| 07 | 300 | 5.6 | 230 | 3.9 | 100 | 2.4 | 4.3 | 3.1 |
| 08 | 310 | 6.1 | 220 | 4.3 | 100 | 2.8 | 5.0 | 3.0 |
| 09 | 300 | 8.2 | 210 | 4.4 | 100 | 3.1 | 5.3 | 3.1 |
| 10 | 320 | 6.3 | 200 | 4.6 | 100 | 3.2 | 5.3 | 3.0 |
| 11 | 310 | 6.0 | 210 | 4.7 | 100 | 3.4 | 5.4 | 2.9 |
| 12 | 310 | 6.1 | 200 | 4.7 | 100 | 3.4 | 5.5 | 3.0 |
| 13 | 320 | 6.0 | 200 | 4.8 | 100 | 3.3 | 5.3 | 3.0 |
| 14 | 310 | 6.1 | 200 | 4.7 | 100 | 3.3 | 4.7 | 3.0 |
| 15 | 300 | 6.3 | 210 | 4.6 | 100 | 3.2 | 4.4 | 3.0 |
| 16 | 310 | 6.2 | 210 | 4.4 | 100 | 3.0 | 3.8 | 3.0 |
| 17 | 290 | 6.2 | 220 | 4.2 | 100 | 2.8 | 4.1 | 3.0 |
| 18 | 280 | 6.6 | 230 | --- | 100 | 2.4 | 3.8 | 3.0 |
| 19 | 260 | 6.8 | --- | --- | 100 | 1.7 | 3.9 | 3.0 |
| 20 | 250 | 7.0 | | | | | 4.6 | 3.0 |
| 21 | 250 | 6.8 | | | | | 3.4 | 3.0 |
| 22 | 250 | 6.1 | | | | | 3.2 | 2.9 |
| 23 | 260 | 5.5 | | | | | 2.8 | 2.8 |

Time: 15.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 8 minutes.

Table 15

Wakkanai, Japan (45.4°N, 141.7°E) August 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 300 | 5.6 | | | | | 3.6 | 2.8 |
| 01 | 300 | 5.4 | | | | | 3.4 | 2.8 |
| 02 | 290 | 5.1 | | | | | 3.2 | 2.8 |
| 03 | 290 | 5.1 | | | | | 3.0 | 2.9 |
| 04 | 280 | 4.8 | | | | | 2.9 | 3.0 |
| 05 | 280 | 5.1 | --- | --- | 100 | 1.7 | 3.0 | 3.0 |
| 06 | 290 | 8.0 | 230 | 3.8 | 100 | 2.2 | 4.4 | 3.0 |
| 07 | 290 | 8.6 | 260 | 4.3 | 100 | 2.7 | 5.2 | 3.1 |
| 08 | 300 | 6.7 | 250 | 4.4 | 100 | 3.0 | 6.6 | 3.2 |
| 09 | 300 | 6.5 | 240 | 4.8 | 100 | 3.2 | 5.6 | 3.1 |
| 10 | 310 | 6.7 | 220 | 4.8 | 100 | 3.4 | 5.0 | 3.0 |
| 11 | 360 | 6.4 | 220 | 4.9 | 100 | 3.3 | 5.0 | 2.8 |
| 12 | 330 | 6.6 | 230 | 5.0 | 100 | 3.4 | 5.1 | 2.9 |
| 13 | 340 | 6.6 | 220 | 4.8 | 100 | 3.6 | 4.7 | 2.9 |
| 14 | 310 | 6.8 | 230 | 4.8 | 100 | 3.4 | 5.4 | 3.1 |
| 15 | 320 | 6.7 | 250 | 4.6 | 100 | 3.2 | 5.2 | 3.0 |
| 16 | 300 | 6.6 | 240 | 4.5 | 100 | 3.0 | 4.9 | 3.0 |
| 17 | 300 | 7.0 | 240 | 4.1 | 100 | 2.6 | 4.7 | 3.1 |
| 18 | 290 | 6.8 | 260 | --- | 100 | 2.0 | 4.4 | 3.0 |
| 19 | 280 | 6.9 | | | | | 4.4 | 3.0 |
| 20 | 270 | 7.0 | | | | | 4.5 | 3.0 |
| 21 | 280 | 6.7 | | | | | 4.3 | 2.9 |
| 22 | 270 | 6.2 | | | | | 3.2 | 2.9 |
| 23 | 280 | 5.7 | | | | | 3.4 | 2.9 |

Time: 135.0°E.
Sweep: 1.0 Mc to 14.0 Mc in 15 minutes, manual operation.

Table 16

Akita, Japan (39.7°N, 140.1°E) August 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 300 | 5.8 | | | | | 3.8 | 2.8 |
| 01 | 300 | 5.5 | | | | | 3.4 | 2.7 |
| 02 | 300 | 5.6 | | | | | 3.6 | 2.7 |
| 03 | 280 | 5.2 | | | | | 3.0 | 2.8 |
| 04 | 280 | 5.2 | | | | | 3.0 | 2.9 |
| 05 | 270 | 5.2 | --- | --- | 120 | 1.7 | 2.8 | 2.9 |
| 06 | 260 | 6.0 | 240 | --- | 110 | 2.3 | 3.6 | 3.1 |
| 07 | 270 | 7.5 | 230 | 4.0 | 110 | 2.8 | 4.1 | 3.2 |
| 08 | 280 | 7.9 | 220 | 4.2 | 110 | 3.1 | 4.4 | 3.2 |
| 09 | 280 | 7.0 | 210 | 4.5 | 110 | 3.2 | 5.0 | 3.1 |
| 10 | 310 | 7.2 | 230 | 5.0 | 110 | 3.2 | 5.4 | 3.0 |
| 11 | 330 | 7.2 | 220 | 5.0 | 110 | 3.5 | 5.4 | 3.0 |
| 12 | 340 | 7.8 | 220 | 5.1 | 110 | 3.6 | 5.9 | 3.0 |
| 13 | 340 | 7.6 | 220 | 5.0 | 110 | 3.6 | 6.2 | 2.9 |
| 14 | 320 | 7.9 | 240 | 5.0 | 110 | 3.5 | 5.2 | 2.9 |
| 15 | 300 | 7.6 | 240 | 4.7 | 110 | 3.4 | 4.2 | 3.1 |
| 16 | 300 | 7.2 | 250 | 4.5 | 110 | 3.2 | 4.7 | 3.0 |
| 17 | 290 | 7.6 | 240 | 4.2 | 110 | 2.7 | 4.7 | 3.0 |
| 18 | 270 | 7.7 | 250 | --- | 120 | 2.1 | 4.2 | 3.0 |
| 19 | 260 | 8.0 | | | | | 4.2 | 3.0 |
| 20 | 250 | 7.7 | | | | | 3.8 | 2.9 |
| 21 | 270 | 6.7 | | | | | 3.6 | 2.9 |
| 22 | 280 | 6.2 | | | | | 4.3 | 2.9 |
| 23 | 300 | 5.8 | | | | | 4.0 | 2.8 |

Time: 135.0°E.
Sweep: 1.0 Mc to 17.0 Mc in 15 minutes, manual operation.

Table 17

Tokyo, Japan (35.7°N, 139.5°E) August 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 290 | 5.9 | | | | | 3.5 | 2.7 |
| 01 | 300 | 5.6 | | | | | 3.4 | 2.8 |
| 02 | 300 | 5.6 | | | | | 3.6 | 2.9 |
| 03 | 280 | 5.5 | | | | | 3.1 | 2.9 |
| 04 | 280 | 4.8 | | | | | 3.0 | 3.0 |
| 05 | 270 | 4.4 | --- | --- | --- | --- | 2.9 | 3.0 |
| 06 | 240 | 6.0 | 260 | --- | 100 | 2.2 | 3.6 | 3.1 |
| 07 | 260 | 7.2 | 230 | --- | 100 | 2.8 | 4.2 | 3.2 |
| 08 | 270 | 7.6 | 220 | 4.4 | 100 | 3.0 | 5.0 | 3.2 |
| 09 | 300 | 8.9 | 220 | 4.6 | 100 | 3.2 | 5.4 | 3.2 |
| 10 | 320 | 6.9 | 200 | 4.8 | 100 | 3.4 | 5.3 | 3.0 |
| 11 | 330 | 7.0 | 220 | 4.9 | 100 | 3.6 | 5.0 | 3.0 |
| 12 | 340 | 7.6 | 230 | 5.0 | 100 | 3.7 | 5.5 | 2.9 |
| 13 | 320 | 7.4 | 220 | 5.0 | 100 | 3.6 | 5.0 | 3.0 |
| 14 | 320 | 7.7 | 220 | 5.0 | 100 | 3.6 | 5.0 | 3.0 |
| 15 | 300 | 7.7 | 230 | 4.7 | 100 | 3.4 | 4.6 | 3.0 |
| 16 | 300 | 8.0 | 230 | 4.5 | 100 | 3.1 | 5.1 | 3.1 |
| 17 | 290 | 7.9 | 240 | --- | 100 | 2.6 | 5.6 | 3.1 |
| 18 | 270 | 8.2 | 270 | --- | 110 | 2.0 | 4.4 | 3.0 |
| 19 | 250 | 7.8 | | | | | 4.3 | 3.1 |
| 20 | 250 | 7.0 | | | | | 3.8 | 3.0 |
| 21 | 270 | 6.6 | | | | | 3.6 | 2.9 |
| 22 | 280 | 6.0 | | | | | 3.6 | 2.9 |
| 23 | 300 | 5.8 | | | | | 3.5 | 2.8 |

Time: 135.0°E.
Sweep: 1.0 Mc to 17.0 Mc in 15 minutes, manual operation.

Table 18

Yamagawa, Japan (31.2°N, 130.6°E) August 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 300 | 6.2 | | | | | 3.8 | 2.7 |
| 01 | 300 | 6.3 | | | | | 3.6 | 2.7 |
| 02 | 300 | 6.0 | | | | | 3.6 | 2.7 |
| 03 | 280 | 5.7 | | | | | 3.3 | 2.9 |
| 04 | 280 | 5.3 | | | | | 3.2 | 2.9 |
| 05 | 280 | 4.9 | | | | | 3.3 | 3.0 |
| 06 | 270 | 5.5 | --- | --- | 110 | 2.0 | 3.2 | 3.0 |
| 07 | 250 | 7.1 | 330 | --- | 110 | 2.4 | 3.8 | 3.2 |
| 08 | 260 | 7.0 | 220 | 4.2 | 110 | 3.0 | 4.2 | 3.2 |
| 09 | 290 | 7.4 | 220 | 4.6 | 110 | 3.2 | 5.7 | 3.3 |
| 10 | 310 | 7.2 | 220 | 4.8 | 110 | 3.5 | 6.4 | 2.9 |
| 11 | 330 | 7.7 | 220 | 5.0 | 110 | 3.6 | 5.8 | 2.9 |
| 12 | 330 | 8.3 | 220 | 5.0 | 110 | 3.6 | 6.5 | 2.8 |
| 13 | 340 | 9.0 | 220 | 5.0 | 110 | 3.8 | 6.1 | 2.8 |
| 14 | 340 | 9.1 | 230 | 5.0 | 110 | 3.7 | 5.4 | 2.9 |
| 15 | 330 | 9.2 | 240 | 5.0 | 110 | 3.5 | 5.5 | 2.8 |
| 16 | 310 | 9.5 | 250 | 4.6 | 110 | 3.4 | 5.6 | 2.9 |
| 17 | 300 | 9.4 | 240 | 4.3 | 100 | 3.0 | 5.0 | 3.0 |
| 18 | 280 | 9.0 | 250 | --- | 110 | 2.4 | 4.6 | 3.1 |
| 19 | 260 | 8.9 | --- | --- | --- | 1.6 | 4.6 | 3.1 |
| 20 | 250 | 8.1 | | | | | 4.4 | 3.1 |
| 21 | 270 | 7.0 | | | | | 4.1 | 2.8 |
| 22 | 290 | 6.5 | | | | | 3.7 | 2.8 |
| 23 | 300 | 6.4 | | | | | 3.8 | 2.7 |

Time: 135.0°E.
Sweep: 1.2 Mc to 18.5 Mc in 15 minutes, manual operation.

Table 19

Huancayo, Peru (12.0°S, 75.3°W) August 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 230 | 7.4 | | | | | 3.2 | 3.1 |
| 01 | 230 | 7.0 | | | | | 3.1 | 3.2 |
| 02 | 240 | 6.2 | | | | | 2.8 | 3.1 |
| 03 | 240 | 6.3 | | | | | 2.7 | 3.2 |
| 04 | 250 | 4.4 | | | | | 2.7 | 3.0 |
| 06 | 270 | 3.7 | | | | | 2.8 | 3.1 |
| 06 | 290 | 4.2 | | | 100 | 1.4 | 3.7 | 2.9 |
| 07 | 250 | 6.8 | | | 100 | 2.4 | 6.8 | 3.1 |
| 08 | 300 | 8.5 | 220 | 4.6 | 100 | 3.0 | 10.4 | 2.8 |
| 09 | 320 | 8.9 | 220 | 4.8 | 100 | 3.1 | 11.6 | 2.5 |
| 10 | 340 | 8.6 | 210 | 4.9 | 100 | --- | 11.9 | 2.5 |
| 11 | 360 | 8.2 | 210 | 4.9 | 100 | --- | 12.0 | 2.4 |
| 12 | 380 | 8.2 | 200 | 4.9 | 100 | --- | 12.0 | 2.4 |
| 13 | 380 | 8.5 | 200 | 4.9 | 100 | --- | 11.9 | 2.4 |
| 14 | 360 | 8.4 | 210 | 4.8 | 100 | --- | 12.0 | 2.4 |
| 15 | 340 | 8.6 | 210 | 4.8 | 100 | 3.1 | 12.0 | 2.4 |
| 16 | 240 | 8.6 | 230 | 4.6 | 100 | 2.7 | 11.0 | 2.4 |
| 17 | 260 | 8.8 | | | 100 | 2.3 | 8.4 | 2.6 |
| 18 | 290 | 8.8 | | | 100 | 1.4 | 3.6 | 2.5 |
| 19 | 320 | 8.1 | | | | | 2.8 | 2.4 |
| 20 | 300 | 7.8 | | | | | 2.8 | 2.6 |
| 21 | 270 | 8.2 | | | | | 2.8 | 2.8 |
| 22 | 230 | 8.0 | | | | | 3.0 | 3.0 |
| 23 | 230 | 7.5 | | | | | 2.8 | 3.1 |

Time: 75.0°W.
Sweep: 16.0 Mc to 0.5 Mc in 15 minutee, automatic operation.

Table 20

Johannesburg, Union of S.Africa (26.2°S, 28.0°E) August 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | (260) | 2.9 | | | | | | 3.0 |
| 01 | 260 | 2.9 | | | | | | 2.8 |
| 02 | 270 | 3.0 | | | | | | 3.0 |
| 03 | 260 | 2.8 | | | | | | 3.0 |
| 04 | (250) | 2.7 | | | | | | 2.9 |
| 06 | 250 | 2.4 | | | | | | 2.9 |
| 06 | (250) | 2.7 | | | | | | 3.0 |
| 07 | 230 | 5.6 | | | --- | 2.1 | | 3.4 |
| 08 | 240 | 6.8 | 220 | --- | 120 | 2.6 | | 3.4 |
| 09 | 260 | 7.5 | 220 | --- | 110 | 3.0 | | 3.3 |
| 10 | 270 | 8.4 | 220 | 4.7 | 110 | 3.4 | | 3.3 |
| 11 | 270 | 8.7 | 210 | 4.8 | 110 | 3.6 | | 3.2 |
| 12 | 270 | 8.7 | 200 | 4.8 | 110 | 3.6 | | 3.2 |
| 13 | 280 | 8.8 | 200 | 4.8 | 110 | (3.5) | 3.7 | 3.1 |
| 14 | 270 | 8.4 | 200 | 4.6 | 110 | 3.4 | 3.6 | 3.1 |
| 15 | 260 | 8.5 | 210 | 4.3 | 110 | (3.2) | 3.0 | 3.1 |
| 16 | 250 | 8.2 | 230 | --- | 110 | 2.8 | | 3.2 |
| 17 | 230 | 7.8 | --- | --- | 120 | 2.4 | | 3.2 |
| 18 | 220 | 7.1 | | | --- | --- | | 3.3 |
| 19 | 220 | 5.2 | | | | | | 3.3 |
| 20 | 230 | 3.7 | | | | | | 3.3 |
| 21 | 240 | 3.1 | | | | | | 3.2 |
| 22 | 250 | 3.1 | | | | | | 3.1 |
| 23 | 250 | 2.9 | | | | | | 3.0 |

Time: 30.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconde.

Table 21

Capetown, Union of S.Africa (34.2°S, 18.3°E) August 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | (280) | 2.7 | | | | | | 2.9 |
| 01 | (280) | (2.8) | | | | | | (2.8) |
| 02 | (280) | 2.9 | | | | | | 2.9 |
| 03 | (270) | (2.9) | | | | | | (2.9) |
| 04 | (260) | 2.9 | | | | | | 3.0 |
| 05 | (260) | 2.6 | | | | | | 2.9 |
| 06 | (260) | 2.6 | | | | | | 3.0 |
| 07 | (250) | 3.0 | | | | | | 3.0 |
| 08 | 220 | 5.6 | | | (120) | 2.1 | | 3.4 |
| 09 | 240 | 6.6 | 220 | --- | 110 | (2.6) | | 3.4 |
| 10 | 250 | 7.2 | 220 | (3.7) | 110 | 3.0 | | 3.2 |
| 11 | 270 | 8.0 | 220 | 4.6 | 110 | (3.2) | | 3.2 |
| 12 | 280 | 8.3 | 220 | 4.7 | 110 | (3.4) | | 3.1 |
| 13 | 270 | 8.6 | 220 | 4.7 | 110 | (3.5) | | 3.1 |
| 14 | 270 | 8.9 | 220 | 4.6 | 110 | (3.4) | | 3.1 |
| 15 | 260 | 9.0 | 220 | 4.2 | 110 | (3.3) | 3.2 | 3.1 |
| 16 | 250 | 8.6 | 220 | --- | 110 | 3.1 | | 3.2 |
| 17 | 240 | 8.0 | 240 | --- | 120 | 2.6 | | 3.2 |
| 18 | 220 | 7.4 | | | --- | 2.1 | | 3.3 |
| 19 | 210 | 5.5 | | | | | | 3.3 |
| 20 | (220) | 3.8 | | | | | | 3.3 |
| 21 | (230) | 2.9 | | | | | | 3.2 |
| 22 | (240) | 2.8 | | | | | | 3.1 |
| 23 | (250) | 2.6 | | | | | | 3.0 |

Time: 30.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 22

Johannesburg, Union of S. Africa (26.2°S, 28.1°E) July 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | (250) | 2.8 | | | | | 1.5 | 3.0 |
| 01 | (260) | 2.6 | | | | | | 2.8 |
| 02 | (280) | 2.8 | | | | | 2.3 | 2.9 |
| 03 | (260) | 2.9 | | | | | 2.0 | 3.0 |
| 04 | (250) | 2.7 | | | | | 1.7 | 3.0 |
| 05 | (250) | 2.6 | | | | | 2.4 | 3.0 |
| 06 | (240) | 2.6 | | | | | 3.2 | 3.0 |
| 07 | 230 | 5.0 | | | --- | 1.8 | | 3.3 |
| 08 | 230 | 6.7 | 220 | --- | 120 | 2.5 | | 3.4 |
| 09 | 240 | 7.8 | 220 | 3.6 | 110 | (2.9) | | 3.3 |
| 10 | 260 | 8.4 | 220 | 4.4 | 110 | (3.2) | | 3.2 |
| 11 | 260 | 8.5 | 210 | 4.7 | 110 | 3.4 | | 3.2 |
| 12 | 260 | 8.0 | 200 | 4.7 | 110 | (3.5) | | 3.2 |
| 13 | 280 | 8.4 | 200 | 4.6 | 110 | 3.4 | 4.0 | 3.1 |
| 14 | 260 | 8.2 | 210 | 4.6 | 110 | (3.3) | 3.8 | 3.1 |
| 15 | 260 | 8.5 | 220 | 4.4 | 110 | 3.1 | 3.7 | 3.1 |
| 16 | 250 | 8.4 | 230 | --- | 110 | 2.7 | 3.1 | 3.2 |
| 17 | 230 | 7.9 | | | 110 | (2.1) | 2.6 | 3.3 |
| 18 | 210 | 5.9 | | | | | 2.5 | 3.3 |
| 19 | (220) | 3.6 | | | | | 2.3 | 3.2 |
| 20 | (240) | 3.0 | | | | | 2.0 | 3.2 |
| 21 | 240 | 3.0 | | | | | 1.9 | 3.1 |
| 22 | 250 | 3.1 | | | | | 1.7 | 3.2 |
| 23 | (250) | 3.0 | | | | | | 3.0 |

Time: 30.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 23

Watheroo, W. Australia (30.3°S, 115.9°E) July 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 250 | 3.3 | | | | | 2.8 | 2.9 |
| 01 | 250 | 3.5 | | | | | 3.0 | 2.9 |
| 02 | 250 | 3.5 | | | | | 3.0 | 2.9 |
| 03 | 250 | 3.7 | | | | | 3.0 | 3.0 |
| 04 | 240 | 3.7 | | | | | 3.1 | 3.0 |
| 05 | 230 | 3.3 | | | | | 2.8 | 3.0 |
| 06 | 230 | 3.0 | | | | | 2.6 | 3.1 |
| 07 | 220 | 4.3 | | | | 1.8 | 2.4 | 3.6 |
| 08 | 230 | 6.3 | 220 | 3.0 | | 2.3 | 3.2 | 3.6 |
| 09 | 240 | 7.3 | 220 | 4.2 | | 2.8 | 3.2 | 3.5 |
| 10 | 250 | 8.0 | 220 | 4.4 | | 3.1 | 3.2 | 3.4 |
| 11 | 250 | 8.2 | 220 | 4.4 | | 3.3 | | 3.4 |
| 12 | 250 | 7.8 | 220 | 4.5 | | 3.3 | 3.5 | 3.4 |
| 13 | 260 | 8.2 | 210 | 4.5 | | 3.3 | 3.5 | 3.3 |
| 14 | 250 | 8.2 | 200 | 4.3 | | 3.2 | 3.5 | 3.3 |
| 15 | 250 | 8.0 | 220 | 4.2 | | 3.0 | 3.4 | 3.3 |
| 16 | 230 | 8.0 | 220 | 3.4 | | 2.7 | 3.2 | 3.4 |
| 17 | 220 | 7.1 | | | | 2.0 | 2.8 | 3.4 |
| 18 | 210 | 5.6 | | | | --- | 3.1 | 3.3 |
| 19 | 220 | 4.0 | | | | | 2.8 | 3.3 |
| 20 | 220 | 3.7 | | | | | 3.0 | 3.2 |
| 21 | 230 | 3.3 | | | | | 2.5 | 3.0 |
| 22 | 240 | 3.4 | | | | | 2.9 | 3.0 |
| 23 | 250 | 3.5 | | | | | 2.8 | 2.9 |

Time: 120.0°E.
Sweep: 16.0 Mc to 0.5 Mc in 15 minutes, automatic operation.

Table 24

Capetown, Union of S. Africa (34.2°S, 18.3°E) July 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | (280) | (2.8) | | | | | | (2.8) |
| 01 | (270) | (2.7) | | | | | | (2.9) |
| 02 | (280) | 2.8 | | | | | | 3.0 |
| 03 | (270) | (2.8) | | | | | | (2.9) |
| 04 | (260) | 2.9 | | | | | | 3.0 |
| 05 | (250) | 2.8 | | | | | | 3.1 |
| 06 | (250) | 2.6 | | | | | 2.0 | 3.0 |
| 07 | (250) | 2.6 | | | | | | 3.1 |
| 08 | 220 | (5.2) | | | --- | (2.0) | | (3.3) |
| 09 | 230 | 8.6 | --- | --- | 110 | 2.6 | | 3.4 |
| 10 | 240 | (7.3) | 230 | --- | 110 | (3.0) | | (3.3) |
| 11 | 250 | (7.6) | 230 | --- | 110 | (3.3) | | (3.2) |
| 12 | 260 | (7.9) | 220 | --- | 110 | (3.5) | | (3.2) |
| 13 | 270 | 8.2 | 220 | 4.6 | 110 | (3.4) | | 3.1 |
| 14 | 260 | 8.4 | 220 | 4.6 | 110 | (3.4) | | 3.1 |
| 15 | 260 | 8.6 | 240 | --- | 110 | (3.1) | 3.6 | 3.1 |
| 16 | 250 | 8.5 | 240 | --- | 110 | (2.9) | 3.0 | 3.2 |
| 17 | 230 | 8.0 | --- | --- | 110 | (2.4) | 2.6 | 3.3 |
| 18 | 220 | 6.4 | | | --- | (1.7) | 2.1 | 3.4 |
| 19 | 220 | 4.0 | | | | | | 3.3 |
| 20 | (240) | 3.0 | | | | | 2.1 | 3.2 |
| 21 | 240 | 2.8 | | | | | | 3.2 |
| 22 | (240) | 2.5 | | | | | | 3.2 |
| 23 | (260) | (2.4) | | | | | | (3.0) |

Time: 30.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 25

Christchurch New Zealand (43.5°S, 172.7°E) July 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 290 | 3.1 | | | | | 3.0 | 2.9 |
| 01 | 290 | 2.8 | | | | | 3.4 | 2.9 |
| 02 | 290 | 2.6 | | | | | 3.3 | 2.9 |
| 03 | 280 | 2.6 | | | | | 3.2 | 2.9 |
| 04 | 250 | 2.6 | | | | | 3.3 | 3.1 |
| 05 | 250 | 2.5 | | | | | 4.0 | 3.2 |
| 06 | 250 | 2.2 | | | | | 3.9 | 3.0 |
| 07 | 270 | 2.8 | | | | --- | 3.0 | 3.1 |
| 08 | 240 | 5.2 | --- | --- | | 1.6 | 3.1 | 3.4 |
| 09 | 240 | 6.7 | 240 | 3.3 | | 2.4 | 3.2 | 3.5 |
| 10 | 250 | 7.1 | 240 | 3.9 | | 2.7 | 3.8 | 3.4 |
| 11 | 250 | 7.4 | 240 | 4.0 | | 2.9 | 4.4 | 3.3 |
| 12 | 250 | 7.7 | 230 | 4.1 | | 3.0 | 4.4 | 3.3 |
| 13 | 260 | 7.8 | 240 | 4.2 | | 2.9 | 4.9 | 3.3 |
| 14 | 250 | 7.7 | 240 | 4.0 | | 2.7 | 4.9 | 3.4 |
| 15 | 240 | 7.3 | 240 | 3.5 | | 2.4 | 3.7 | 3.4 |
| 16 | 240 | 7.0 | --- | --- | | 1.8 | 3.5 | 3.4 |
| 17 | 230 | 6.9 | | | | 1.3 | 3.5 | 3.2 |
| 18 | 240 | 5.2 | | | | | 3.7 | 3.0 |
| 19 | 240 | 4.7 | | | | | 2.8 | 3.1 |
| 20 | 250 | 4.0 | | | | | 3.0 | 3.1 |
| 21 | 250 | 3.5 | | | | | 2.7 | 2.9 |
| 22 | 280 | 3.2 | | | | | 3.1 | 2.9 |
| 23 | 290 | 3.2 | | | | | 2.6 | 2.8 |

Time: 172.5°E.
Sweep: 1.0 Mc to 13.0 Mc.

Table 26

Rarotonga I. (21.3°S, 159.8°W) June 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 290 | 5.8 | | | | | | 2.7 |
| 01 | 300 | 5.5 | | | | | | 2.8 |
| 02 | 290 | 5.2 | | | | | | 2.9 |
| 03 | 280 | 5.2 | | | | | | 2.9 |
| 04 | 270 | 4.5 | | | | | | 2.9 |
| 05 | 300 | 4.3 | | | | | | 2.8 |
| 06 | 300 | 4.3 | --- | --- | --- | --- | | 2.8 |
| 07 | 250 | 7.1 | --- | --- | --- | --- | | 3.0 |
| 08 | 250 | 9.6 | 250 | 4.2 | 110 | 3.2 | 3.6 | 3.1 |
| 09 | 250 | 11.4 | 240 | 4.9 | 110 | 3.1 | 4.0 | 3.1 |
| 10 | 250 | 11.5 | 230 | 4.8 | 110 | 3.3 | 4.3 | 3.1 |
| 11 | 250 | 10.8 | 230 | 4.9 | 110 | 3.4 | 4.3 | 3.1 |
| 12 | 260 | 9.8 | 220 | 5.0 | 110 | 3.5 | 4.5 | 3.0 |
| 13 | 290 | 11.1 | 220 | 5.6 | 110 | 3.5 | 4.6 | 2.9 |
| 14 | 260 | 9.8 | 210 | 5.6 | 110 | 3.3 | 4.4 | 2.9 |
| 15 | 260 | 10.0 | 250 | 5.6 | 110 | 3.2 | 4.6 | 2.9 |
| 16 | 250 | 10.8 | 250 | 5.3 | 110 | 2.9 | 4.5 | 2.9 |
| 17 | 250 | 10.2 | --- | --- | 110 | 3.1 | 4.0 | 2.9 |
| 16 | 240 | 10.1 | --- | --- | | | 4.3 | 3.0 |
| 19 | 230 | 9.8 | --- | --- | | | 4.0 | 3.0 |
| 20 | 240 | 9.3 | --- | --- | | | 3.6 | 2.9 |
| 21 | 250 | 8.9 | --- | --- | | | 3.4 | 3.0 |
| 22 | 260 | 8.4 | | | | | 2.8 | 2.8 |
| 23 | 250 | 7.1 | | | | | | 2.9 |

Time: 157.5°W.
Sweep: 2.0 Mc to 16.0 Mc, manual operation.

Table 27

Brisbane, Australia (27.6°S, 153.0°E) June 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 260 | 4.2 | | | | | | 2.9 |
| 01 | 260 | 4.4 | | | | | | 2.9 |
| 02 | 260 | 4.4 | | | | | 2.2 | 2.9 |
| 03 | 250 | 4.6 | | | | | 3.0 | 2.9 |
| 04 | 240 | 4.4 | | | | | 3.0 | 3.0 |
| 05 | 240 | 4.1 | | | | | 3.0 | 3.0 |
| 06 | 240 | 4.2 | | | | | 2.6 | 3.1 |
| 07 | 220 | 6.6 | | | 170 | 2.2 | | 3.4 |
| 08 | 220 | 8.4 | --- | --- | 110 | 2.7 | 2.4 | 3.4 |
| 09 | 240 | 9.0 | 220 | 4.4 | 100 | 3.0 | 3.7 | 3.3 |
| 10 | 240 | 9.4 | 210 | 4.6 | 100 | 3.2 | 3.6 | 3.4 |
| 11 | 240 | 8.6 | 200 | 4.6 | 100 | 3.4 | 3.8 | 3.2 |
| 12 | 240 | 8.7 | 200 | 4.7 | 100 | 3.4 | 3.9 | 3.2 |
| 13 | 240 | 8.4 | 200 | 4.5 | 106 | 3.3 | 4.2 | 3.2 |
| 14 | 240 | 9.1 | 200 | 4.5 | 105 | 3.2 | 4.1 | 3.1 |
| 15 | 240 | 8.8 | 200 | 4.0 | 105 | 3.0 | 4.1 | 3.2 |
| 16 | 220 | 8.4 | | | 110 | 2.4 | 4.2 | 3.3 |
| 17 | 210 | 7.7 | | | | | 4.2 | 3.3 |
| 18 | 200 | 6.1 | | | | | 3.8 | 3.2 |
| 19 | 230 | 4.8 | | | | | 3.5 | 3.0 |
| 20 | 240 | 4.4 | | | | | 2.9 | 3.0 |
| 21 | 250 | 4.5 | | | | | 3.2 | 2.9 |
| 22 | 250 | 4.3 | | | | | | 2.9 |
| 23 | 240 | 4.2 | | | | | | 2.8 |

Time: 150.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 28

Canberra, Australia (35.3°S, 149.0°E) June 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 250 | 4.0 | | | | | 2.7 | 2.9 |
| 01 | 260 | 4.0 | | | | | 2.8 | 2.9 |
| 02 | 250 | (4.0) | | | | | 2.8 | 2.8 |
| 03 | 260 | 4.0 | | | | | 2.6 | 2.9 |
| 04 | 250 | 4.2 | | | | | 2.6 | 3.0 |
| 05 | 230 | 3.9 | | | | | 2.7 | 3.1 |
| 06 | 230 | 3.5 | | | | | 2.5 | 3.1 |
| 07 | 230 | 4.6 | | | --- | (1.5) | 2.9 | 3.2 |
| 08 | 210 | 7.1 | | | 100 | 2.3 | 2.7 | 3.6 |
| 09 | 220 | 8.4 | 220 | --- | 100 | 2.8 | 2.7 | 3.5 |
| 10 | 220 | 8.5 | 210 | --- | 100 | 3.0 | 2.7 | 3.5 |
| 11 | 230 | 8.6 | 200 | (4.4) | 100 | 3.1 | 2.6 | 3.5 |
| 12 | 240 | 8.5 | 200 | 4.3 | 100 | 3.2 | 2.8 | 3.3 |
| 13 | 240 | 9.2 | 200 | 4.3 | 100 | 3.1 | 2.9 | 3.3 |
| 14 | 240 | 9.3 | 210 | (4.2) | 100 | 3.1 | 3.0 | 3.3 |
| 15 | 230 | 9.2 | 220 | 3.3 | 100 | 2.8 | 3.0 | 3.3 |
| 16 | 220 | 8.4 | --- | --- | 100 | 2.3 | 2.9 | 3.3 |
| 17 | 210 | 7.6 | | | --- | 1.6 | 2.7 | 3.4 |
| 18 | 210 | 6.2 | | | | | 2.7 | 3.2 |
| 19 | 220 | (5.5) | | | | | 2.6 | 3.2 |
| 20 | 220 | 4.6 | | | | | 2.5 | 3.2 |
| 21 | (240) | (4.0) | | | | | 2.6 | 3.0 |
| 22 | 240 | 4.0 | | | | | 2.5 | 3.0 |
| 23 | 250 | 4.0 | | | | | 2.5 | 3.0 |

Time: 150.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 29

Hobart, Tasmania (42.8°S, 147.4°E) June 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 270 | (2.3) | | | | | 3.1 | (2.9) |
| 01 | 260 | (2.5) | | | | | 2.1 | (2.9) |
| 02 | (270) | (2.6) | | | | | 2.0 | (2.8) |
| 03 | 290 | 2.4 | | | | | 2.0 | 2.9 |
| 04 | 270 | (2.5) | | | | | 2.2 | (2.9) |
| 05 | 260 | 2.4 | | | | | 2.0 | (3.0) |
| 06 | 250 | 2.4 | | | | | 1.8 | 3.0 |
| 07 | 250 | 2.9 | | | | | 2.0 | 3.0 |
| 08 | 230 | 6.8 | | | --- | 1.8 | (2.2) | 3.3 |
| 09 | 230 | 7.0 | | | 110 | 2.1 | (2.1) | 3.4 |
| 10 | 230 | (8.5) | --- | --- | 110 | 2.7 | | (3.2) |
| 11 | 240 | (8.5) | 220 | 4.2 | 110 | 2.9 | (1.9) | (3.2) |
| 12 | 250 | (9.3) | 220 | 4.4 | 110 | 3.0 | | (3.1) |
| 13 | (250) | (10.5) | 220 | 4.2 | 110 | 3.1 | | (3.1) |
| 14 | 240 | (9.5) | --- | 4.0 | --- | --- | 3.0 | (3.2) |
| 15 | 230 | (10.3) | 230 | --- | --- | --- | (2.1) | (3.2) |
| 16 | (230) | (9.2) | | | --- | 2.0 | (2.2) | (3.3) |
| 17 | 220 | 7.8 | | | --- | E | 2.1 | (3.1) |
| 18 | 220 | 6.6 | | | | | 2.0 | 3.0 |
| 19 | 220 | 5.8 | | | | | 2.1 | 3.2 |
| 20 | 230 | 4.4 | | | | | 2.0 | 3.2 |
| 21 | 240 | (3.3) | | | | | | (3.1) |
| 22 | 240 | (2.8) | | | | | 3.0 | (2.9) |
| 23 | 260 | (2.7) | | | | | | (2.9) |

Time: 150.0°E.
Sweep: 1.0 Mc to 13.0 Mc in 1 minute 65 seconds.

Table 30

Hobart, Tasmania (42.8°S, 147.4°E) May 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 260 | 3.7 | | | | | 2.0 | 2.9 |
| 01 | 280 | 3.6 | | | | | 2.0 | 2.8 |
| 02 | 280 | 3.3 | | | | | 1.9 | 2.7 |
| 03 | 280 | 3.2 | | | | | 1.9 | 2.8 |
| 04 | 270 | 3.0 | | | | | 2.0 | 2.8 |
| 05 | 250 | 2.8 | | | | | 1.8 | 3.0 |
| 06 | 260 | 2.6 | | | | | 1.8 | 3.0 |
| 07 | 250 | 4.2 | | | --- | --- | 1.9 | 3.1 |
| 08 | 240 | 6.4 | --- | --- | 110 | 1.9 | 1.9 | 3.3 |
| 09 | 230 | (7.5) | 240 | 3.8 | 100 | 2.7 | | (3.3) |
| 10 | 240 | (8.0) | 230 | 4.4 | 100 | 2.9 | | (3.2) |
| 11 | 250 | (7.8) | 220 | 4.4 | 100 | 3.2 | | (3.0) |
| 12 | 250 | (9.8) | 220 | 4.4 | 100 | 3.3 | 2.4 | (3.1) |
| 13 | 250 | (9.9) | 220 | 4.4 | 100 | 3.2 | 2.2 | (3.1) |
| 14 | 240 | (10.8) | 230 | 4.2 | 95 | 3.1 | 2.0 | (3.0) |
| 15 | 240 | (10.6) | 220 | 3.3 | 95 | (2.8) | 2.1 | (3.2) |
| 16 | 230 | (10.0) | | | 100 | 2.1 | 2.0 | (3.2) |
| 17 | 220 | (8.7) | | | --- | --- | 2.0 | (3.1) |
| 18 | 220 | 7.3 | | | | | 2.0 | 3.0 |
| 19 | 220 | 6.9 | | | | | 1.9 | 3.0 |
| 20 | 240 | 5.0 | | | | | | 3.0 |
| 21 | 250 | 4.4 | | | | | | 2.9 |
| 22 | 250 | 4.3 | | | | | | 2.9 |
| 23 | 260 | 3.7 | | | | | 2.0 | 2.8 |

Time: 150.0°E.
Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 31

Delhi, India (28.6°N, 77.1°E) April 1950 **

| Time | * | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 360 | 7.2 | | | | | | 3.0 |
| 01 | 360 | 7.0 | | | | | | |
| 02 | --- | --- | | | | | | |
| 03 | --- | --- | | | | | | |
| 04 | --- | --- | | | | | | 3.2 |
| 05 | 320 | 6.8 | | | | | | |
| 06 | 300 | 7.7 | | | | | | |
| 07 | 280 | 9.4 | | | | | | |
| 08 | 300 | 10.6 | | | | | | 3.1 |
| 09 | 320 | 11.5 | | | | | | |
| 10 | 340 | 12.3 | | | | | | |
| 11 | 350 | 13.1 | | | | | | |
| 12 | 360 | 13.8 | | | | | | 2.8 |
| 13 | (360) | 14.0 | | | | | | |
| 14 | (340) | (14.2) | | | | | | |
| 15 | (340) | (14.2) | | | | | | |
| 16 | (330) | (14.2) | | | | | | 2.7 |
| 17 | 340 | 13.9 | | | | | | |
| 18 | 320 | 13.2 | | | | | | |
| 19 | 320 | 12.0 | | | | | | |
| 20 | 330 | 10.1 | | | | | | 2.9 |
| 21 | 340 | 9.0 | | | | | | |
| 22 | 360 | 8.4 | | | | | | |
| 23 | 360 | 8.0 | | | | | | |

Time: Local.
Sweep: 1.8 Mc to 16.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.
**Average values; other columns, median values.

Table 32

Bombay, India (19.0°N, 73.0°E) April 1950 **

| Time | * | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | | | | | | | | |
| 06 | | | | | | | | |
| 07 | 330 | 8.6 | | | | | | |
| 08 | 420 | 11.0 | | | | | | 2.6 |
| 09 | 480 | 11.9 | | | | | | |
| 10 | 480 | 13.2 | | | | | | |
| 11 | 570 | 14.2 | | | | | | |
| 12 | (540) | (14.7) | | | | | | 2.3 |
| 13 | (540) | (15.0) | | | | | | |
| 14 | --- | (15.0) | | | | | | |
| 15 | --- | (15.2) | | | | | | |
| 16 | --- | (15.3) | | | | | | |
| 17 | (460) | (15.1) | | | | | | |
| 18 | 510 | (15.0) | | | | | | |
| 19 | 520 | 14.5 | | | | | | |
| 20 | 510 | 14.1 | | | | | | 2.5 |
| 21 | 480 | 13.8 | | | | | | |
| 22 | 450 | 13.0 | | | | | | 2.6 |
| 23 | 450 | 12.7 | | | | | | |

Time: Local.
Sweep: 1.8 Mc to 16.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.
**Average values; other columns, median values.

Table 33

Madras, India (13.0°N, 80.2°E) April 1950 **

| Time | * | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | | | | | | | | |
| 06 | | | | | | | | |
| 07 | 360 | 9.7 | | | | | | |
| 08 | 420 | 11.2 | | | | | | 2.6 |
| 09 | 450 | 11.8 | | | | | | |
| 10 | 480 | 12.0 | | | | | | |
| 11 | 540 | 11.6 | | | | | | |
| 12 | 510 | 11.4 | | | | | | 2.4 |
| 13 | 540 | 12.2 | | | | | | |
| 14 | 540 | 12.7 | | | | | | |
| 15 | 540 | 13.2 | | | | | | |
| 16 | 540 | 13.4 | | | | | | 2.4 |
| 17 | 540 | 13.5 | | | | | | |
| 18 | 540 | 13.4 | | | | | | |
| 19 | 540 | 13.0 | | | | | | |
| 20 | --- | (12.5) | | | | | | 2.3 |
| 21 | --- | (12.0) | | | | | | |
| 22 | --- | (12.0) | | | | | | |
| 23 | | | | | | | | |

Time: Local.
Sweep: 1.8 Mc to 16.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.
**Average values; other columns, median values.

Table 34

Tiruchy, India (10.8°N, 78.8°E) April 1950

| Time | * | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | | | | | | | | |
| 06 | --- | --- | | | | | | |
| 07 | 360 | 9.4 | | | | | | |
| 08 | 420 | 10.9 | | | | | | |
| 09 | 480 | 11.3 | | | | | | |
| 10 | 540 | 11.5 | | | | | | |
| 11 | 540 | 11.5 | | | | | | |
| 12 | 600 | 11.0 | | | | | | |
| 13 | 600 | 11.2 | | | | | | |
| 14 | 600 | 11.5 | | | | | | |
| 15 | (800) | 12.2 | | | | | | |
| 16 | 570 | 12.5 | | | | | | |
| 17 | 570 | 12.5 | | | | | | |
| 18 | 600 | 12.2 | | | | | | |
| 19 | 600 | 11.8 | | | | | | |
| 20 | 600 | 11.6 | | | | | | |
| 21 | 600 | 11.0 | | | | | | |
| 22 | --- | --- | | | | | | |
| 23 | | | | | | | | |

Time: Local.
Sweep: 1.8 Mc to 16.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 35

Domont, France (49.0°N, 2.3°E) March 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 300 | 5.0 | | | | | | 2.7 |
| 01 | 290 | 5.0 | | | | | | 2.6 |
| 02 | 300 | 5.0 | | | | | | 2.6 |
| 03 | 300 | 5.0 | | | | | | 2.7 |
| 04 | 290 | 4.4 | | | | | | 2.6 |
| 05 | 280 | (3.7) | --- | --- | --- | E | | (2.8) |
| 06 | 250 | (5.2) | --- | 1.9 | --- | E | | 3.2 |
| 07 | (220) | (7.0) | 220 | --- | 100 | 2.1 | | (3.2) |
| 08 | (220) | (7.6) | 210 | --- | 100 | 2.7 | | (3.2) |
| 09 | (240) | (9.6) | 200 | --- | 100 | 3.0 | | (3.2) |
| 10 | (290) | 8.7 | 200 | --- | 100 | 3.2 | | 3.2 |
| 11 | 260 | 9.9 | 200 | --- | 100 | 3.1 | | 3.1 |
| 12 | 270 | 10.1 | 200 | --- | 100 | 3.3 | | 3.2 |
| 13 | 280 | 10.6 | 200 | --- | 100 | 3.3 | | 3.1 |
| 14 | 270 | 10.0 | 200 | --- | 100 | 3.2 | | 3.1 |
| 15 | (280) | 10.2 | 220 | --- | 100 | 3.1 | | 3.2 |
| 16 | (260) | 10.2 | 220 | --- | 100 | 2.8 | 3.1 | 3.2 |
| 17 | (230) | 9.6 | 230 | --- | 100 | 2.3 | 3.0 | 3.1 |
| 18 | 220 | 9.7 | 220 | --- | 110 | 1.9 | 2.4 | 3.2 |
| 19 | (230) | (8.4) | 210 | --- | --- | E | | (3.0) |
| 20 | 220 | (6.8) | | | | | | 3.1 |
| 21 | 240 | 6.2 | | | | | | 2.9 |
| 22 | 270 | (5.5) | | | | | | 2.8 |
| 23 | 280 | 5.6 | | | | | | 2.7 |

Time: 0.0°.
Sweep: 1.5 Mc to 15.2 Mc in 1 minute 30 seconds.

Table 36

Fribourg, Germany (48.1°N, 7.8°E) March 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 290 | 5.5 | | | | | | 2.7 |
| 01 | 285 | 5.4 | | | | | | 2.7 |
| 02 | 285 | 5.2 | | | | | | 2.7 |
| 03 | 290 | 5.2 | | | | | | 2.7 |
| 04 | 280 | 5.0 | | | | | | 2.8 |
| 05 | 255 | 4.7 | | | | | | 2.9 |
| 06 | 250 | 5.0 | | | --- | E | | 3.0 |
| 07 | 230 | 6.8 | --- | --- | 119 | 1.9 | | 3.3 |
| 08 | 225 | 8.4 | 230 | --- | 109 | 2.6 | 2.3 | 3.2 |
| 09 | 220 | 9.4 | 220 | 4.5 | 107 | 3.0 | | 3.2 |
| 10 | 255 | 10.2 | 210 | 4.6 | 107 | 3.2 | 3.9 | 3.1 |
| 11 | 250 | 10.6 | 210 | 4.8 | 107 | 3.3 | 3.7 | 3.1 |
| 12 | 260 | 11.0 | 210 | 4.8 | 107 | 3.4 | | 3.1 |
| 13 | 255 | 10.8 | 215 | 4.9 | 108 | 3.3 | | 3.1 |
| 14 | 240 | 10.5 | 220 | --- | 109 | 3.3 | | 3.1 |
| 15 | 230 | 10.4 | 220 | --- | 106 | 3.1 | | 3.1 |
| 16 | 235 | 9.9 | 230 | --- | 109 | 2.8 | | 3.1 |
| 17 | 235 | 9.8 | --- | --- | 113 | 2.3 | 2.1 | (3.2) |
| 18 | 230 | 9.3 | --- | --- | --- | --- | 2.4 | (3.2) |
| 19 | 225 | 8.2 | | | | | 2.2 | 3.1 |
| 20 | 230 | 7.3 | | | | | | 3.0 |
| 21 | 235 | 6.5 | | | | | | 2.9 |
| 22 | 250 | 6.0 | | | | | | 2.8 |
| 23 | 270 | 5.6 | | | | | | 2.8 |

Time: Local.
Sweep: 1.4 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 37

Poitiers, France (46.6°N, 0.3°E) March 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | (320) | 5.8 | | | | | | 2.6 |
| 01 | (320) | 5.6 | | | | | | (2.7) |
| 02 | 320 | 5.4 | | | | | | (2.6) |
| 03 | (310) | 5.4 | | | | | | 2.6 |
| 04 | --- | 5.0 | | | | | | 2.8 |
| 05 | --- | 4.4 | | | --- | E | | (2.8) |
| 06 | 270 | 5.1 | | | --- | E | | 2.8 |
| 07 | 240 | 6.8 | --- | --- | --- | --- | | 3.1 |
| 08 | 240 | 7.9 | 230 | --- | --- | 2.7 | | 3.2 |
| 09 | 250 | 8.8 | 225 | 4.3 | --- | 2.7 | | 3.2 |
| 10 | 250 | 9.5 | 225 | 4.4 | --- | 3.2 | | (3.2) |
| 11 | 255 | 9.9 | 215 | 4.4 | 120 | 3.3 | | 3.0 |
| 12 | 260 | 10.2 | 220 | --- | 110 | 3.3 | | 3.0 |
| 13 | 260 | 10.1 | 225 | --- | 110 | 3.3 | | 3.0 |
| 14 | 260 | 9.9 | 230 | --- | 120 | 3.3 | | 3.0 |
| 15 | 255 | 9.8 | 230 | --- | --- | 3.2 | | 3.0 |
| 16 | 250 | 9.9 | 230 | --- | --- | 2.7 | | (3.1) |
| 17 | 250 | 9.7 | 240 | --- | --- | 2.7 | | 3.1 |
| 18 | 240 | 9.5 | | | --- | E | | 3.0 |
| 19 | 240 | 8.4 | | | --- | E | | 3.0 |
| 20 | 250 | 7.6 | | | | | | 2.9 |
| 21 | 270 | 6.7 | | | | | | 2.8 |
| 22 | 280 | 6.2 | | | | | | 2.8 |
| 23 | (300) | 6.0 | | | | | | 2.6 |

Time: 0.0°.
Sweep: 3.1 Mc to 11.8 Mc in 1 minute 15 seconds.

Table 38

Dakar, French West Africa (14.6°N, 17.4°W) March 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 260 | --- | | | | | | |
| 01 | 235 | --- | | | | | | |
| 02 | 220 | --- | | | | | | |
| 03 | 220 | (7.2) | | | | | | |
| 04 | 240 | 6.4 | | | | | | |
| 05 | 250 | 5.8 | | | | | | |
| 06 | 250 | 6.2 | | | | | 3.6 | |
| 07 | 240 | 9.6 | --- | --- | 130 | 2.5 | 3.8 | |
| 08 | 250 | 11.6 | 230 | --- | 115 | 3.1 | 4.0 | |
| 09 | 255 | 13.0 | 225 | --- | 110 | 3.5 | 4.2 | |
| 10 | (280) | 13.8 | --- | --- | 110 | --- | 6.4 | |
| 11 | (305) | 14.7 | --- | --- | 110 | --- | | |
| 12 | --- | 15.2 | --- | --- | 105 | --- | | |
| 13 | --- | 15.2 | --- | --- | 110 | --- | | |
| 14 | --- | 15.7 | (210) | --- | 110 | 4.0 | | |
| 15 | (335) | 15.2 | 225 | --- | 110 | --- | 3.9 | |
| 16 | (275) | 15.3 | 235 | --- | 115 | 3.2 | 3.7 | |
| 17 | 310 | 14.7 | 240 | --- | 125 | 2.7 | 3.8 | |
| 18 | 255 | (>14.7) | --- | --- | | | 3.8 | |
| 19 | 340 | (15.0) | | | | | 3.2 | |
| 20 | 340 | (15.2) | | | | | | |
| 21 | 340 | (16.2) | | | | | | |
| 22 | 305 | (>13.6) | | | | | | |
| 23 | 285 | --- | | | | | | |

Time: Local.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 39 (see also table 23, p.15, CRPL-F71)

Watheroo, W. Australia (30.3°S, 115.9°E) March 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | | | | | | | | |
| 06 | | | | | | | | |
| 07 | | | --- | | | | | |
| 08 | | | 230 | | | | | |
| 09 | | | 220 | | | | | |
| 10 | | | 220 | | | | | |
| 11 | | | 220 | | | | | |
| 12 | | | 220 | | | | | |
| 13 | | | 230 | | | | | |
| 14 | | | 230 | | | | | |
| 15 | | | 230 | | | | | |
| 16 | | | 240 | | | | | |
| 17 | | | 240 | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |

Time: 120.0°E.
Sweep: 16.0 Mc to 0.5 Mc in 15 minutes, automatic operation.

Table 40

Fribourg, Germany (48.1°N, 7.8°E) February 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 285 | 4.4 | | | | | | 2.7 |
| 01 | 285 | 4.3 | | | | | | 2.8 |
| 02 | 290 | 4.3 | | | | | | 2.7 |
| 03 | 280 | 4.2 | | | | | | 2.7 |
| 04 | 280 | 4.2 | | | | | | 2.8 |
| 05 | 260 | 3.7 | | | | | | 3.0 |
| 06 | 250 | 3.4 | | | | | | 2.9 |
| 07 | 240 | 5.0 | | | --- | E | | 3.1 |
| 08 | 225 | 7.6 | --- | --- | 119 | 2.0 | | 3.4 |
| 09 | 225 | 8.7 | --- | --- | 111 | 2.6 | | 3.3 |
| 10 | 225 | 10.3 | 220 | --- | 111 | 3.0 | | 3.3 |
| 11 | 220 | 10.4 | 210 | --- | 111 | 3.2 | | 3.3 |
| 12 | 230 | 10.7 | 220 | 4.4 | 110 | 3.3 | | 3.2 |
| 13 | 225 | 10.4 | 225 | --- | 111 | 3.2 | | 3.2 |
| 14 | 225 | 9.8 | 225 | --- | 113 | 3.1 | | 3.2 |
| 15 | 230 | 9.8 | --- | --- | 113 | 2.8 | | 3.2 |
| 16 | 230 | 9.7 | | | 117 | 2.2 | | 3.2 |
| 17 | 220 | 8.5 | | | 129 | 1.8 | 2.6 | 3.3 |
| 18 | 220 | 7.1 | | | | | 1.9 | 3.1 |
| 19 | 230 | 6.8 | | | | | | 3.1 |
| 20 | 235 | 5.6 | | | | | | 3.1 |
| 21 | 240 | 4.8 | | | | | | 2.9 |
| 22 | 250 | 4.6 | | | | | | 2.8 |
| 23 | 270 | 4.6 | | | | | | 2.8 |

Time: Local.
Sweep: 1.4 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 41

Dakar, French West Africa (14.6°N, 17.4°W) February 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 225 | (>14.9) | | | | | | |
| 01 | 230 | (14.4) | | | | | | |
| 02 | 215 | --- | | | | | | |
| 03 | 210 | (7.9) | | | | | | |
| 04 | 220 | 5.9 | | | | | | |
| 05 | 240 | 4.5 | | | | | | |
| 06 | 250 | 5.4 | | | | | | |
| 07 | 240 | 9.6 | | | 125 | 2.5 | 3.8 | |
| 08 | 240 | 11.8 | 230 | --- | 115 | 2.8 | 4.1 | |
| 09 | 255 | 13.2 | 220 | --- | 110 | 3.4 | 4.0 | |
| 10 | 275 | 14.4 | 215 | --- | 105 | 3.6 | 4.5 | |
| 11 | 305 | 15.1 | 215 | 5.4 | 105 | 3.9 | | |
| 12 | 340 | 15.0 | 210 | --- | 110 | 4.0 | | |
| 13 | (375) | 15.1 | 200 | --- | 105 | 4.0 | | |
| 14 | (365) | 14.7 | 210 | --- | 110 | 3.7 | | |
| 15 | (330) | 14.7 | 220 | --- | 110 | 3.5 | 4.0 | |
| 16 | (310) | 15.0 | 225 | --- | 115 | 3.0 | 4.0 | |
| 17 | 240 | 14.7 | 250 | --- | 120 | 2.5 | 3.5 | |
| 18 | 260 | 14.6 | | | | | 3.9 | |
| 19 | 305 | 14.7 | | | | | 3.6 | |
| 20 | 285 | --- | | | | | 3.4 | |
| 21 | 250 | --- | | | | | 3.5 | |
| 22 | 240 | --- | | | | | | |
| 23 | 230 | --- | | | | | | |

Time: Local
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 42

Fribourg, Germany (48.1°N, 7.8°E) January 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 290 | 3.8 | | | | | | 2.8 |
| 01 | 290 | 3.9 | | | | | | 2.7 |
| 02 | 295 | 3.8 | | | | | | 2.7 |
| 03 | 290 | 3.8 | | | | | | 2.8 |
| 04 | 280 | 3.5 | | | | | | 2.8 |
| 05 | 270 | 3.2 | | | | | | 2.8 |
| 06 | 260 | 3.0 | | | | | | 2.9 |
| 07 | 250 | 3.6 | | | | | | 2.9 |
| 08 | 220 | 6.8 | | | --- | 1.6 | 1.9 | 3.3 |
| 09 | 215 | 8.6 | | | 113 | 2.4 | 2.2 | 3.4 |
| 10 | 220 | (10.0) | --- | --- | 110 | 2.7 | | (3.3) |
| 11 | 225 | 10.4 | 230 | --- | 110 | 2.9 | | 3.3 |
| 12 | 220 | 10.5 | --- | --- | 109 | 2.9 | | 3.3 |
| 13 | 220 | 10.2 | --- | --- | 111 | 2.8 | 3.2 | 3.2 |
| 14 | 230 | 10.4 | --- | --- | 114 | 2.6 | 1.9 | 3.2 |
| 15 | 230 | 10.2 | --- | --- | 119 | 2.3 | 1.9 | 3.3 |
| 16 | 220 | 8.7 | | | 127 | 1.8 | 2.0 | 3.3 |
| 17 | 215 | 7.5 | | | --- | --- | 2.2 | 3.2 |
| 18 | 220 | (6.4) | | | | | | 3.2 |
| 19 | 225 | 5.2 | | | | | 2.1 | (3.2) |
| 20 | 230 | 4.3 | | | | | | 3.1 |
| 21 | 275 | 3.9 | | | | | | 2.8 |
| 22 | 290 | 3.9 | | | | | | 2.8 |
| 23 | 295 | 3.9 | | | | | | 2.7 |

Time: Local.
Sweep: 1.4 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 43

Dakar, French West Africa (14.6°N, 17.4°W) January 1950

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | 230 | --- | | | | | | |
| 01 | 225 | --- | | | | | | |
| 02 | 225 | (8.5) | | | | | | |
| 03 | 220 | 6.8 | | | | | | |
| 04 | 250 | 5.1 | | | | | | |
| 05 | 260 | 4.7 | | | | | | |
| 06 | 260 | 4.3 | | | | | | |
| 07 | 250 | 8.9 | | | 150 | --- | 2.8 | |
| 08 | 260 | 12.2 | 240 | --- | 115 | 2.8 | 3.1 | |
| 09 | 265 | 14.0 | 225 | --- | 110 | 3.3 | 3.4 | |
| 10 | 275 | (>14.0) | 225 | --- | 110 | 3.7 | | |
| 11 | 295 | (>14.0) | 210 | --- | 110 | 3.8 | | |
| 12 | 330 | (>14.3) | 200 | 5.4 | 110 | 3.8 | | |
| 13 | 355 | (>14.2) | 220 | (6.0) | 115 | 3.8 | | |
| 14 | 320 | (>14.2) | 230 | --- | 115 | 3.6 | | |
| 15 | (310) | 14.1 | 225 | --- | 115 | 3.5 | | |
| 16 | 305 | (>13.8) | 235 | --- | 115 | 3.0 | 3.4 | |
| 17 | 250 | (>13.8) | 250 | --- | 125 | 2.4 | 3.5 | |
| 18 | 275 | (>14.0) | --- | --- | | | 3.4 | |
| 19 | 325 | (>14.6) | | | | | 2.9 | |
| 20 | 270 | --- | | | | | | |
| 21 | 250 | --- | | | | | | |
| 22 | 250 | --- | | | | | | |
| 23 | 245 | --- | | | | | | |

Time: Local.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 44*

Campbell I. (52.5°S, 169.2°E) April 1949

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | 260 | 4.8 | | | | | | (2.8) |
| 06 | | | | | | | | |
| 07 | 250 | 7.1 | | | 140 | 2.0 | 1.7 | 3.1 |
| 08 | 240 | 8.7 | --- | --- | 120 | 2.4 | | 3.1 |
| 09 | 230 | 10.5 | | | 110 | 2.8 | | 3.1 |
| 10 | 230 | 10.9 | --- | --- | 110 | 3.0 | 2.0 | 3.0 |
| 11 | 230 | 12.0 | --- | --- | 110 | 3.1 | | 3.0 |
| 12 | 230 | 11.7 | --- | --- | 110 | 3.2 | 1.8 | 3.0 |
| 13 | 240 | 11.9 | --- | --- | 110 | 3.1 | | 2.9 |
| 14 | 240 | 11.7 | | | 110 | 3.0 | | 2.9 |
| 15 | 240 | 12.6 | | | 110 | 2.6 | 1.9 | 2.9 |
| 16 | 240 | 11.7 | | | 130 | 2.2 | 2.0 | 2.9 |
| 17 | 230 | 11.3 | | | --- | E | | 3.0 |
| 18 | 230 | 10.2 | | | --- | --- | 2.0 | 2.9 |
| 19 | 230 | 8.7 | | | | | | 2.9 |
| 20 | | | | | | | | |
| 21 | 250 | 7.3 | | | | | | 2.8 |
| 22 | | | | | | | | |
| 23 | 260 | (6.6) | | | | | 2.7 | --- |

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 45*

Campbell I. (52.5°S, 169.2°E) March 1949

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | 280 | (5.3) | | | --- | --- | 1.9 | (2.7) |
| 06 | | | | | | | | |
| 07 | 250 | 6.7 | --- | --- | 120 | 2.5 | | 3.0 |
| 08 | 240 | 7.1 | 250 | 4.3 | 110 | 2.8 | | 2.9 |
| 09 | 250 | 7.6 | 240 | 4.8 | 110 | 3.1 | 1.9 | 2.9 |
| 10 | 300 | 7.8 | 230 | 5.2 | 110 | 3.3 | | 2.8 |
| 11 | 300 | 8.0 | 240 | 5.1 | 100 | 3.4 | | 2.7 |
| 12 | 340 | 8.2 | 240 | 5.1 | 100 | 3.5 | | 2.7 |
| 13 | 300 | 8.3 | 240 | 5.2 | 100 | 3.5 | | 2.7 |
| 14 | 300 | 8.5 | 230 | 5.0 | 100 | 3.4 | | 2.7 |
| 15 | 240 | 8.8 | 240 | 5.0 | 110 | 3.2 | | 2.7 |
| 18 | 250 | 8.7 | 250 | --- | 120 | 2.9 | | 2.7 |
| 17 | 250 | 9.0 | --- | --- | 120 | 2.2 | 1.7 | 2.7 |
| 18 | 250 | 8.9 | | | 150 | 1.8 | 2.3 | 2.7 |
| 19 | 250 | 9.2 | | | --- | --- | 1.7 | 2.7 |
| 20 | | | | | | | | |
| 21 | 270 | 7.4 | | | | | 2.6 | (2.6) |
| 22 | | | | | | | | |
| 23 | 290 | (6.7) | | | | | 4.1 | (2.5) |

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 46*

Campbell I. (52.5°S, 169.2°E) April 1948

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | 260 | 4.9 | | | | | | --- |
| 06 | | | | | | | | |
| 07 | 250 | 7.0 | | | (150) | 2.0 | 2.2 | 3.0 |
| 08 | 240 | 8.9 | | | 110 | 2.5 | 2.4 | 3.1 |
| 09 | 230 | 10.4 | | | 110 | 2.9 | 2.6 | 3.0 |
| 10 | 230 | 10.8 | --- | --- | 110 | 3.1 | | 3.0 |
| 11 | 240 | 11.5 | --- | --- | 110 | 3.2 | | 2.9 |
| 12 | 230 | 11.9 | | | 110 | 3.2 | | 2.9 |
| 13 | 240 | 11.7 | | | 110 | 3.2 | | 2.9 |
| 14 | 230 | 11.7 | | | 110 | 3.1 | | 2.9 |
| 15 | 240 | 11.7 | | | 110 | 2.8 | | 2.9 |
| 16 | 250 | 11.5 | | | 120 | 2.3 | | 2.9 |
| 17 | 240 | 11.0 | | | --- | 1.8 | 1.8 | 2.9 |
| 18 | 240 | 10.2 | | | | | | 2.8 |
| 19 | 240 | 8.0 | | | | | | 2.8 |
| 20 | | | | | | | | |
| 21 | 250 | 7.6 | | | | | | (2.7) |
| 22 | | | | | | | | |
| 23 | (270) | 6.6 | | | | | | --- |

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 47*

Campbell I. (52.5°S, 169.2°E) March 1948

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | 260 | (4.2) | | | --- | --- | 2.2 | --- |
| 06 | | | | | | | | |
| 07 | 240 | 6.4 | | | 120 | 2.4 | 2.8 | 3.1 |
| 08 | 240 | 7.4 | --- | --- | 110 | 2.8 | 3.2 | 3.1 |
| 09 | 240 | 8.0 | 220 | 4.5 | 110 | 3.1 | 3.5 | 3.0 |
| 10 | 240 | 8.1 | 220 | 4.7 | 110 | 3.2 | 3.5 | 3.0 |
| 11 | 250 | 8.6 | 220 | 4.7 | 110 | 3.3 | | 2.9 |
| 12 | 240 | 8.8 | 210 | 4.9 | 110 | 3.3 | 3.6 | 2.9 |
| 13 | 230 | 8.8 | 210 | 5.0 | 110 | 3.3 | 2.8 | 2.9 |
| 14 | 240 | 9.0 | 220 | 4.6 | 110 | 3.2 | | 2.9 |
| 15 | 240 | 9.2 | 230 | 4.3 | 110 | 3.1 | | 2.9 |
| 16 | 250 | 9.1 | --- | --- | 110 | 2.8 | | 2.9 |
| 17 | 250 | 9.3 | | | 120 | 2.2 | | 2.8 |
| 18 | 250 | 9.3 | | | --- | 1.7 | 2.2 | 2.9 |
| 19 | 250 | 8.8 | | | --- | --- | 1.9 | 2.8 |
| 20 | | | | | | | | |
| 21 | 250 | 6.8 | | | | | 2.1 | (2.7) |
| 22 | | | | | | | | |
| 23 | (290) | (6.1) | | | | | 2.3 | --- |

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 48*

Campbell I. (52.5°S, 169.2°E) April 1947

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | 250 | (5.0) | | | | | 2.6 | (2.7) |
| 06 | | | | | | | | |
| 07 | 250 | 7.1 | --- | --- | --- | 2.2 | 2.5 | 3.0 |
| 08 | 250 | 8.3 | --- | --- | 120 | 2.5 | | 3.0 |
| 09 | 250 | 9.4 | --- | --- | 120 | 2.9 | | 3.0 |
| 10 | 250 | 10.4 | 240 | 5.4 | 120 | 3.0 | | 3.0 |
| 11 | 250 | 11.4 | --- | --- | 110 | 3.1 | | 2.9 |
| 12 | 240 | 12.0 | --- | --- | 110 | 3.1 | | 2.9 |
| 13 | 250 | 12.0 | --- | --- | 120 | 3.1 | | 2.9 |
| 14 | 250 | 12.2 | --- | --- | 120 | 3.0 | | 2.9 |
| 15 | 250 | 12.0 | --- | --- | 120 | 2.8 | | 2.9 |
| 16 | 240 | 11.9 | | | 120 | 2.4 | | 2.9 |
| 17 | 240 | 11.2 | | | --- | 1.8 | | 2.9 |
| 18 | 250 | 10.0 | | | --- | --- | 2.1 | 2.8 |
| 19 | 250 | 9.0 | | | | | 2.4 | 2.8 |
| 20 | | | | | | | | |
| 21 | 260 | 7.7 | | | | | 2.3 | 2.8 |
| 22 | | | | | | | | |
| 23 | 300 | (6.8) | | | | | 2.5 | (2.6) |

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 49* (supersedes table 36, CRPL-F34)

Campbell I. (62.5°S, 169.2°E) March 1947

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | 300 | --- | | | | | 3.2 | --- |
| 06 | | | | | | | | |
| 07 | 250 | 6.6 | | | 120 | 2.5 | 2.9 | 2.9 |
| 08 | 300 | 7.3 | 250 | 4.8 | 110 | 2.9 | 2.7 | 2.9 |
| 09 | 300 | 7.8 | 250 | 5.3 | 110 | 3.0 | | 2.9 |
| 10 | 300 | 8.2 | 240 | 5.1 | 110 | 3.1 | | 2.8 |
| 11 | 310 | 8.6 | 250 | 5.4 | 110 | 3.2 | | 2.7 |
| 12 | 330 | 8.8 | 250 | 5.6 | 110 | 3.3 | | 2.7 |
| 13 | 300 | 8.9 | 240 | 5.6 | 110 | 3.4 | | 2.6 |
| 14 | 330 | 9.2 | 240 | 6.0 | 110 | 3.0 | | 2.6 |
| 15 | 340 | 9.2 | 250 | 5.4 | 110 | 3.0 | | 2.7 |
| 16 | 300 | 8.6 | 250 | 5.0 | 110 | 2.9 | | 2.7 |
| 17 | 300 | 8.8 | 260 | 5.0 | 120 | 2.6 | | 2.7 |
| 18 | 270 | 9.3 | --- | --- | 120 | 2.2 | 3.1 | 2.7 |
| 19 | 260 | 9.3 | | | | | 3.1 | 2.8 |
| 20 | | | | | | | | |
| 21 | 310 | 7.8 | | | | | 3.2 | --- |
| 22 | | | | | | | | |
| 23 | 350 | --- | | | | | 5.4 | --- |

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 50*

Campbell I. (52.5°S, 169.2°E) April 1946

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | 300 | (4.4) | | | --- | --- | | --- |
| 06 | | | | | | | | |
| 07 | 250 | 5.7 | --- | --- | --- | --- | 2.6 | 2.9 |
| 08 | 245 | 6.8 | --- | --- | 120 | 2.4 | 2.7 | 3.0 |
| 09 | 250 | 7.7 | 230 | 3.8 | 120 | 2.6 | 2.9 | 3.0 |
| 10 | 270 | 8.5 | 240 | 4.3 | 120 | 2.9 | 2.8 | 3.0 |
| 11 | 265 | 8.7 | 250 | 4.2 | 120 | 3.0 | | 3.0 |
| 12 | 270 | 9.2 | 245 | 4.4 | 120 | 3.0 | | 3.0 |
| 13 | 260 | 9.2 | 240 | 4.3 | 120 | 2.9 | | 3.0 |
| 14 | 250 | 9.4 | 245 | 4.0 | 125 | 2.9 | | 3.0 |
| 15 | 250 | 9.4 | --- | --- | 125 | 2.6 | 2.7 | 3.0 |
| 16 | 250 | 9.0 | --- | --- | 125 | 2.3 | 2.2 | 2.9 |
| 17 | 250 | 8.8 | --- | --- | 140 | 2.0 | 2.2 | 2.9 |
| 18 | 245 | 7.9 | --- | --- | --- | --- | 2.4 | 2.9 |
| 19 | 250 | 7.5 | | | --- | --- | 2.7 | 2.7 |
| 20 | | | | | | | | |
| 21 | 280 | 6.4 | | | | | 2.7 | 2.5 |
| 22 | | | | | | | | |
| 23 | 300 | (5.5) | | | | | 3.0 | 2.4 |

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 51* (supersedes table 25, CRPL-F22)

Campbell I. (52.5°S, 169.2°E) March 1946

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | 290 | 4.0 | | | --- | --- | | (2.5) |
| 06 | | | | | | | | |
| 07 | 250 | 6.2 | 250 | 4.0 | 130 | 2.5 | | 2.9 |
| 08 | 290 | 7.1 | 250 | 4.5 | 125 | 2.9 | | 2.9 |
| 09 | 300 | 7.7 | 240 | 4.4 | 125 | 3.1 | | 2.9 |
| 10 | 290 | 8.4 | 240 | 4.6 | 125 | 3.2 | | 2.9 |
| 11 | 300 | 8.6 | 245 | 4.7 | 125 | 3.3 | | 2.9 |
| 12 | 290 | 8.8 | 240 | 4.7 | 130 | 3.3 | | 2.9 |
| 13 | 300 | 9.0 | 240 | 4.6 | 125 | 3.3 | | 2.9 |
| 14 | 300 | 8.4 | 250 | 4.6 | 130 | 3.3 | | 2.9 |
| 15 | 286 | 8.6 | 250 | 4.5 | 130 | 3.1 | | 2.9 |
| 16 | 276 | 8.8 | 250 | 4.4 | 130 | 2.9 | | 2.9 |
| 17 | 250 | 8.8 | 250 | 4.5 | 130 | 2.4 | | 2.9 |
| 18 | 250 | 8.6 | --- | --- | 150 | 2.2 | | 2.9 |
| 19 | 250 | 8.5 | --- | ---- | | | | 2.8 |
| 20 | | | | | | | | |
| 21 | 285 | 7.1 | | | | | | 2.5 |
| 22 | | | | | | | | |
| 23 | 310 | (6.0) | | | | | 3.6 | (2.5) |

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Form adopted June 1946

# TABLE 52

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

## IONOSPHERIC DATA

h'F2 (Characteristic), Km (Unit), October (Month), 1950

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | (330)K S | 310 K | 280 K | 300 K | 300 K | 230 K | 300 K | 260 K | 240 K | 590 K | 680 K | 610 K | 600 K | G K | 600 K | 500 K H | 390 K | 310 K | 270 K | (270)K S | 290 K | (310)K S | (340)K S | (400)K S |
| 2 | (400)K S | (350)K S | 300 K | 280 K | 310 K | [300]K S | 300 K | 250 K | G K | 400 K H | 400 K | 340 K | (370)K H | 350 K | 370 K | 280 K | 280 K | 260 K | 250 K | (250)K S | 280 K | 290 K | (300)K S | [360]K S |
| 3 | (410)K S | [380]K S | (340)K S | 320 K | (310)K B | [290]K B | 270 | 250 | 270 | 260 | 260 H | 280 | 290 | 290 | 290 | 290 | 270 | 250 | 220 | 230 | 230 | 270 | 310 | (350) S |
| 4 | 400 | 330 | (390) B | 340 | (330) S | (300) S | 300 | 250 | 270 | 270 | 320 | 310 | 300 | 300 | 300 | 280 | 270 | 250 | 230 | 240 | (290) A | (270) S | 300 | S |
| 5 | B | B | B | B | B | (330) S | 280 | 240 | 280 | 290 | 280 | 290 H | 280 | 280 | 280 | 280 | 260 H | 240 | 220 | 220 | (230) S | 300 | 290 | [300] A |
| 6 | 300 | 300 | 350 | 330 | 300 | (310) S | 300 | 250 | 270 | 300 | 310 | 310 | 300 | 310 | 290 | 280 | 260 | 240 | 220 | 220 | [260] C | 300 | (320) S | (310) S |
| 7 | [300] C | 290 | (320) S | 300 | 300 | (310) S | 300 | 250 | 250 | 300 H | 290 | 280 | 320 | 300 | 290 | 280 | 270 | 240 | 230 | 250 | (270) S | 280 | 270 | 280 |
| 8 | 280 | 300 | 260 | 270 | 280 | 290 | 260 | 230 | 260 | 240 H | 290 | [280] C | 280 | 300 | 240 H | 230 | 230 | 230 | 220 | 230 | 220 | (260) S | (290) S | 300 |
| 9 | 300 | (290) S | 270 | 240 | 230 | 290 | 290 | 240 | 250 | 260 | 260 | 260 H | 260 | 260 | 300 | 270 | 250 | 230 | 220 | 230 | 250 | 270 | 300 F | 290 |
| 10 | 280 | 290 | 270 | 270 | 280 | 280 | 250 | 230 | 240 | 250 | 240 | 270 | 280 | 270 | 270 | 270 | 250 | 230 | 210 | 210 | 240 | 270 | 290 | 280 |
| 11 | 280 | 290 | 280 | 260 | 260 | 270 | 260 | 230 | 250 | 260 | 270 | 270 | 270 | 280 | 260 | 260 | 240 | 230 | 210 | 220 | 230 | (270) S | 300 | 300 |
| 12 | 300 | 300 | 290 | 230 | 220 | (300) S | 300 | 250 | 230 | 230 | 250 | 270 | 270 | 270 | 270 | 270 | 250 | 230 | 220 | 230 | 230 | (260) B | 270 | 300 |
| 13 | 300 | 290 | 270 | 260 | 270 | (260) S | 250 | 230 | 230 | 260 | 260 | 280 | 270 | 270 | 270 | 260 | 240 | 220 | 210 | 230 | 250 | (290) S | 300 | 300 |
| 14 | 300 | (260) S | 240 | 230 | 230 | [270] S | (310) S | 250 | 270 | 270 | 290 | 290 | 300 | 290 | 290 | 280 | 280 | 270 | 240 | 240 | 300 | (300) S | 300 | 280 |
| 15 | 280 | 250 | 230 | 300 | 300 | 320 | 280 | 250 | 230 | 240 | 250 | 280 | 290 | 280 | 270 | 270 | 240 | 230 | 230 | 220 | (270) S | 290 | 300 | (300) A |
| 16 | (310) A | 290 | 290 | 280 | 290 | 300 | 290 | 240 K | 330 K | 360 K | 410 K | 400 K | 320 K | 340 K | 340 K | 310 K | 290 K | 250 K | 250 K | 280 | 260 | 290 | 310 | 310 |
| 17 | 300 | 280 | 250 | 260 | (280) S | [280] S | 280 | 230 | 230 | 210 | 210 H | 290 | 270 | 280 | 280 | 260 | 240 | 230 | 220 | (260) B | (270) B | 290 | 280 | 300 |
| 18 | 290 | 290 | 270 | 270 | 250 | (300) S | (260) S | 260 | 230 | 260 | 270 | 270 | 270 | 280 | 280 | 260 | 250 | 230 | 220 | 260 | (280) A | 290 | 300 | 300 |
| 19 | (290) S | 290 | 290 | 280 | 270 | 270 | (290) S | 240 | 240 | 260 | 250 | 270 | 270 | 270 | 270 | 260 | 230 | 220 | (230) A | (240) A | 270 | 280 | 280 | 230 |
| 20 | 290 | 280 | 290 | 280 | 260 | 240 | 270 | 230 | 230 | 230 | 230 | 270 | 270 | 240 | 220 H | 220 | 220 | 210 | 220 | 230 | 270 | (280) S | 290 | 290 |
| 21 | (280) S | 290 | 290 | [280] B | (280) B | 280 | 250 | 240 | 240 | 280 | 250 | 260 | 270 | 260 | 250 | 250 | 230 | 220 | 200 | 230 | 230 | 270 | 250 | 270 |
| 22 | 270 | (300) B | B | B | B | (270) S | 250 | 220 | 260 | 230 | 230 | 270 | 280 | 270 | 250 | 230 | 220 | 220 | 220 | 230 | 250 | 230 | 250 | 240 |
| 23 | 230 | 240 | 230 | 230 | 230 | (240) S | 270 | 270 | 250 | 220 | 220 | 240 | 250 | 240 | 250 | 230 | 210 | 210 | 200 | 210 | 240 | 250 | 250 | 250 |
| 24 | 210 | 270 | 240 | M | M | M | (280) S | 220 H | 230 | M | M | 250 | 250 | 260 | 260 | 240 | 230 | 210 | 200 | 220 | 230 | 280 | 280 | 270 |
| 25 | (260) S | 260 | 240 | 230 | 220 | 210 | (270) S | 220 | 220 | 230 | 240 | 250 | 220 | 250 | 250 | 240 | 230 | 220 | 200 | 220 | 230 | 280 | 270 | 260 |
| 26 | 260 | 260 | [270] A | 280 | [280] A | 280 | 240 | 230 | 220 | 250 | 220 | 250 | 270 | 250 | 260 | 240 | 230 | 210 | 210 | 210 | (230) S | (270) S | (270) S | (260) S |
| 27 | 270 | 270 | 280 | 280 | 250 | 230 | 240 | 230 | 230 | 220 | 260 | 260 | 260 | 270 | 230 | 240 | 220 | 200 | (220) S | 230 | (220) S | (260) S | (300) S | (300) S |
| 28 | (300)K S | 280 K | 290 K | 240 K | 250 K | 330 K | 310 K | 290 K | 500 K | 550 K | 730 K | 610 K | 460 K | G K | 540 K | 420 K | 340 K | 240 K | 240 K | 280 K | (450)K B | (380)K S | (330)K S | 300 K |
| 29 | (270)K S | 290 K | (300)K B | 240 K | 260 K | 300 K | 280 K | 230 K | 230 K H | 230 K | 230 K | 250 K | 270 K | 250 K | 250 K | 230 K | 220 K | M K | M K | 280 K | 340 K | (330)K S | (370)K S | (330)K S |
| 30 | (350)K S | (260)K S | 330 K | (310)K B | 270 K | (270)K S | (300)K S | 230 K | 240 K | 230 K | 230 K | 240 K | 270 K | 270 K | 270 K | 250 K | 220 K | 210 K | 200 K | 250 K | 230 K | (320)K S | S K | S K |
| 31 | S K | S K | S K | (260)K S | 300 K | S K | S K | 260 K | 280 K | 290 K | 270 K | 280 K | 260 K | 260 K | 230 K | 200 K H | 230 K | 200 K | 200 K | 210 K | (230)K S | (240)K S | (310)K S | S K |
| Median | 290 | 290 | 280 | 280 | 280 | 280 | 280 | 240 | 240 | 260 | 260 | 270 | 270 | 270 | 270 | 260 | 240 | 230 | 220 | 230 | 250 | 280 | 300 | 300 |
| Count | 29 | 29 | 28 | 28 | 28 | 29 | 30 | 31 | 31 | 30 | 30 | 31 | 31 | 31 | 31 | 31 | 31 | 30 | 30 | 31 | 31 | 31 | 30 | 28 |

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

Form adopted June 1946

# TABLE 53

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

## IONOSPHERIC DATA

foF2 (Characteristic) Mc (Unit) October (Month), 1950

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | (4.0)SK | (3.4)FK | 2.5FK | 2.5FK | K(2.0)SF | (2.4)FK | 2.8FK | 4.4FK | 4.7FK | 4.6FK | 4.3K | 4.3FK | 4.3K | <4.1GK | 4.3K | 4.4HK | 4.6K | 4.6K | 4.7K | 4.1K | (3.2)VK | 2.7K | K(2.3)SF | (2.0)SK |
| 2 | (1.9)SK | 2.1FK | 2.1FK | 2.0FK | F K | S FK | 2.6FK | 3.5HK | <(3.8)GK | 4.5HK | 5.4FK | 6.3K | K6.4FH | 7.4FK | K(7.7)SF | (9.3)SK | 8.6K | (8.2)SK | K(8.0)SF | 5.3FK | K(4.8)SF | K(3.8)SF | K(2.7)SF | (2.1)FK |
| 3 | K(2.5)SF | K(1.9)SF | (2.4)FK | (1.9)SF | B FK | B K | 3.2F | (5.3)S | 7.0 | 8.0 | 7.9H | 7.8 | 8.5 | 8.7F | (8.5)S | 9.0 | (8.8)SF | (8.8)SF | (8.0)SF | (7.0)S | (5.0)SF | (3.7)SF | 3.0F | (3.0)ZF |
| 4 | [3.0]F | (2.9)SF | (2.4)FB | [2.3]F | (2.2)B | 2.3F | 2.9 | 5.1F | 5.8F | 6.3F | 6.6 | 7.8 | 7.9 | 8.2 | 8.4 | 8.8 | (7.7)S | 6.8 | (7.1)S | 5.7 | (4.8)SF | 3.7F | 3.0 | (2.5)JB |
| 5 | (2.3)S | B | B | B | B | 1.9F | 3.0F | 4.7F | 6.2F | 7.2Z | 7.0 | (7.4)H | 8.0 | 8.6 | 8.4 | 8.5 | (8.8)SH | (8.2)S | (7.8)S | 5.8 | 4.1 | 3.1F | (3.0)S | (2.8)A |
| 6 | 2.8F | 2.5F | (2.1)SF | (2.0)SF | (1.7)F | 1.7F | 2.7F | 4.4F | 5.5F | 5.9F | (6.0)SF | 7.0 | 7.8 | 8.0 | 8.5 | (8.8)S | 8.6F | (7.4)S | (6.2)S | 4.6F | 4.4F | 3.4F | 3.3F | 3.2F |
| 7 | [2.9]C | (2.6)SF | (2.4)SF | 2.3F | (2.0)SF | (2.0)SF | (3.2)P | 5.0F | 6.0F | 6.4H | 7.4 | 7.9V | 8.2 | 8.7 | 8.8 | 8.3 | 7.2 | 7.6 | 6.3 | 5.7F | 5.1 | 4.5 | 4.1 | (3.9)JS |
| 8 | 3.5 | 3.2 | 3.2F | (2.9)F | 2.3F | 2.1F | 3.4F | (5.8)SF | 7.4 | (7.2)H | 8.0 | [8.1]C | 8.3 | 9.0 | 8.4H | 8.5 | 8.7 | 8.4 | 7.5 | (6.4)S | 5.2 | 4.2 | (3.9)JS | (3.8)JS |
| 9 | (3.9)JF | (3.9)JS | (3.8)JS | 3.5 | 2.7 | 1.7F | 3.0F | (5.6)F | 7.8 | (7.6)JZ | 8.0 | 8.0H | 8.2 | 8.2 | 8.6 | 9.0 | (9.0)S | 8.6F | (7.6)S | 6.0F | 4.8F | 4.4F | (3.8)SF | (4.0)SF |
| 10 | (3.8)SF | 3.6F | 3.5F | 3.1F | 3.1F | 3.0F | 3.7F | 6.3 | 7.0 | 8.5 | 8.1 | 8.3 | 9.3 | 9.0 | (9.1)S | 9.4 | 9.8 | 8.8 | (8.0)JS | 5.9F | 5.0F | 4.5F | 4.3F | (4.0)SF |
| 11 | 4.0F | (4.0)SF | (4.0)SF | 3.8F | 3.6F | 3.3F | 3.8 | (6.0)SF | 7.7 | 7.8 | 8.4 | 8.8 | 9.2 | 9.7 | 9.4 | 10.0 | (9.8)S | 9.2 | (8.0)S | 6.0F | 5.8 | 5.3F | (4.7)JF | 4.9 |
| 12 | 4.7 | 4.6 | 4.6 | 4.6 | 3.4 | (2.4)JS | 3.4 | 6.9 | 8.2Z | 8.8 | 10.0 | 9.8 | 9.8 | 9.8 | 9.7 | 9.4 | 9.7 | (9.6)S | 8.3 | 6.5 | 5.4 | (4.8)JS | 4.3 | (3.9)JS |
| 13 | 4.0 | 4.0 | 3.9 | 3.6 | 3.3 | 3.2F | 4.1 | 6.5 | 7.4 | (8.6)S | 8.0 | 9.4 | 10.8 | 10.9 | 11.3 | (10.8)S | (10.2)S | (9.5)SP | (7.3)S | 6.6 | (5.7)JS | 5.2 | (5.3)S | 5.0 |
| 14 | 5.0 | (5.2)S | 4.8 | 3.6 | 2.8 | 2.3 | (2.9)JS | 5.6 | 7.8 | 8.8V | 9.7 | 10.0 | 10.3 | 11.0 | 10.1 | 8.2 | 7.8 | (7.5)S | 6.8 | 5.5 | 4.7 | 4.7 | 4.5 | 4.7 |
| 15 | 4.8F | 4.6F | 2.6F | 2.3F | 2.2F | (2.4)S | 3.3 | 6.7 | 8.1V | 8.3 | 8.7 | 9.0 | 9.4 | 9.7 | 9.6 | 9.2 | (8.8)S | 8.0 | (7.5)S | 5.8F | 4.8 | 4.5 | 4.2F | 4.2F |
| 16 | 4.1F | 4.0F | 3.2F | 3.1F | 2.6F | 1.8F | (2.6)SF | 4.4FK | 5.4K | 5.2FK | K(5.9)SF | 6.1FK | 7.0FK | 6.4FK | K(6.6)SF | 6.6FK | 6.6K | (6.3)SK | K(5.9)PS | 5.0 | 4.5 | 4.1 | (3.9)S | (3.9)S |
| 17 | (3.8)S | (3.6)SF | 3.5F | 2.5F | (1.9)SF | 1.8F | 2.9F | 5.6F | 7.0F | 7.4 | 7.4FH | 10.0 | 10.0 | 10.6 | (10.4)S | 10.7 | (10.0)S | (9.3)S | (7.9)S | 6.3F | 5.0 | (4.8)S | 4.7 | 4.5F |
| 18 | 4.3F | 4.2F | (4.0)SF | 3.7F | (2.7)JF | 2.1F | 2.5F | 5.2F | 7.7F | 7.9FZ | 7.8F | 9.2F | 9.6 | 9.3F | 10.2Z | 9.4Z | (9.4)S | 8.1F | (6.9)SF | 5.5F | 4.7F | 4.4 | 4.3F | 4.1F |
| 19 | 4.0F | (3.8)SF | 3.4F | (3.3)JF | (2.9)JF | 2.4F | 2.8F | 5.6F | 6.8FZ | 7.8 | 7.8 | 8.7F | 9.2F | 9.2 | 9.6 | (9.5)S | (9.3)S | (8.7)S | (6.2)S | (5.4)F | (4.8)SF | (4.4)SF | (4.0)SF | (3.5)F |
| 20 | 3.6F | (3.4)SF | 3.6F | (3.5)SF | (3.5)SF | (2.6)SF | 3.1F | 6.2F | 6.6F | 7.5 | 7.3Z | (8.2)SF | (9.1)S | 9.4 | (9.0)SH | (9.6)S | (9.6)S | (8.3)S | (6.8)F | (5.4)S | (5.0)SF | (4.2)JS | (3.9)JF | (3.8)SF |
| 21 | (3.8)SF | (3.9)JF | (3.7)B | [3.5]B | (3.3)JB | (3.2)SF | (3.2)SF | (5.6)F | (6.5)S | (7.5)S | (8.2)S | (8.3)S | (9.2)S | (9.1)S | (9.0)S | (9.0)S | (8.5)S | (8.0)S | (6.1)F | (6.0)F | (4.8)S | (4.3)J | (4.0)S | (4.0)S |
| 22 | (3.5)P | (3.2)J | B | B | B | (3.0)SF | (3.7)SF | (6.0)S | (7.2)S | (8.0)S | (7.8)S | (8.2)S | (9.4)S | (9.0)S | (10.1)S | (10.0)S | (8.5)S | (8.0)S | (7.5)ZS | (7.2)SP | (6.5)S | (6.2)SP | (5.4)S | (5.7)S |
| 23 | (5.2)S | (5.1)S | 4.8F | 4.1F | 3.7F | 3.2F | 3.5F | (5.7)S | 7.5 | 8.4 | (9.3)S | 9.0 | 9.0 | (9.7)S | (9.1)S | (9.6)S | 8.6 | (8.1)S | 7.1 | 5.2 | (4.8)S | (4.3)S | (4.2)JA | (4.1)P |
| 24 | 3.7 | (3.7)P | (3.8)P | M | M | M | 2.6 | (5.6)H | (7.1)R | M | M | 9.0 | 9.2 | 9.3 | (9.5)S | (9.5)S | 9.0 | (7.6)S | 5.8F | 4.6 | (3.5)SF | 3.3 | 3.5 | 3.4 |
| 25 | (3.5)S | 3.5 | 3.4 | 3.5 | 3.3 | 2.8F | 2.6 | (5.2)S | 7.3 | 7.2 | 7.8 | 8.3 | 8.9 | 9.6 | 9.0 | 8.5 | 8.3 | 8.0 | 6.0 | 4.4 | (3.8)J | 3.4 | (3.7)J | 3.7 |
| 26 | 3.7 | 3.6 | 3.6 | 3.4 | 3.2 | 3.1 | (3.3)S | 5.7 | 6.6 | 8.2 | (7.8)R | 7.8 | (9.6)S | 9.2 | 9.3 | (9.1)S | 8.8 | (7.5)S | 6.0 | 4.7 | 3.8 | 3.6 | 3.6 | 3.4 |
| 27 | 3.2 | 3.3 | 3.3 | 3.4 | 3.4 | 3.3 | 3.4VF | (6.8)JS | 7.4 | 7.9V | 9.1F | 7.9 | 9.0 | 9.5 | 9.0 | 9.2 | 8.8 | (7.4)S | (6.2)S | (6.0)S | 5.2 | 4.5 | 4.5 | 4.2 |
| 28 | 4.2K | 4.7K | 4.1K | 3.8K | 2.3FK | (2.5)FK | 3.1FK | K(3.9)SF | K(3.9)SF | (4.2)BK | 3.9K | (4.2)FK | 4.7FK | <4.0GK | 5.1K | 5.6K | 7.0FK | K(7.8)SF | K(8.2)SF | F K | F K | 2.0FK | (2.4)FK | (2.5)FK |
| 29 | (2.7)KF | (2.5)FK | K[2.2]FB | (1.6)FK | K(1.7)FB | (1.7)FK | 2.2FK | 5.1FK | 7.7H | 8.9FK | 9.2FK | 9.2FK | 10.8K | (11.9)SK | 11.5K | (10.1)SK | 8.7K | M K | M K | K(3.8)SF | K(3.1)SF | (3.0)FK | (2.4)FK | [2.4]FK |
| 30 | (2.5)FK | (2.6)FK | (2.4)FK | K[2.4]FB | (2.0)FK | K(1.8)SF | (2.1)FK | (5.3)FK | (7.1)FK | 8.7K | 9.2K | 9.8K | 11.1K | 11.3K | 10.6K | 11.6K | K(11.5)SP | K(9.5)SP | 7.0FK | K(4.3)VF | K(3.7)SF | 2.8FK | K(2.0)SF | K(1.8)JF |
| 31 | K(1.7)JS | S FK | S FK | K(1.5)SF | 1.7FK | K(1.5)SF | K(1.8)SF | 4.1K | K(5.2)SF | K5.5VF | 6.7FK | 8.0FK | 9.6FK | 9.9K | 9.7K | 8.8HK | K(10.6)JS | (9.1)SK | (7.8)SK | (6.0)SK | (4.0)SK | 3.0K | (2.2)FK | K(1.9)SF |
| Median | (3.7) | (3.6) | 3.4 | 3.2 | 2.7 | 2.4 | 3.0 | 5.6 | 7.0 | 7.7 | 7.8 | 8.2 | 9.2 | 9.2 | 9.1 | 9.2 | 8.8 | (8.1) | (7.1) | 5.7 | 4.8 | 4.2 | (3.9) | (3.8) |
| Count | 31 | 29 | 28 | 28 | 26 | 28 | 31 | 31 | 31 | 30 | 30 | 31 | 31 | 31 | 31 | 31 | 31 | 30 | 30 | 30 | 30 | 31 | 31 | 31 |

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

# TABLE 54

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

## IONOSPHERIC DATA

foF2 (Characteristic), Mc (Unit), October (Month), 1950

Observed at Washington, D. C.

Lat. 38.7°N, Long. 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B, McC.

Calculated by: B.E.B., R.F.B

| Day | 0030 | 0130 | 0230 | 0330 | 0430 | 0530 | 0630 | 0730 | 0830 | 0930 | 1030 | 1130 | 1230 | 1330 | 1430 | 1530 | 1630 | 1730 | 1830 | 1930 | 2030 | 2130 | 2230 | 2330 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | (38)SK | [32]FK | 26FK | 23FK | K(20)SF | -2.3FK | 39FK | 47FK | 46FK | 4.3K | [4.3]FK | 4.4FK | (44)BK | (4.0)GK | 45K | 45K | 47K | 46K | (43)SK | 37K | (28)SK | 25K | (20)SK | (1.9)SK |
| 2 | (20)SK | 20FK | K(22)SF | SF | SFK | K(18)SF | 34FK | (41)SK | 47K | 5.0K | 56FK | 64FK | 64FK | 80FK | 88K | (86)SK | 82FK | K(77)JS | K(62)SF | 49FK | J(39)SF | (33)FK | (25)FK | (21)FK |
| 3 | K[22]SF | [22]FK | 24FK | (17)FK | [17]FK | (17)FK | (43)Z | (59)S | 74 | 8.0 | 8.0 | 8.2 | 87 | 88F | 8.8 | (93)S | 88F | 86F | (75)S | 65 | (38)SF | 3.0F | 29F | (2.9)ZP |
| 4 | SF | SF | 24F | FB | F | (18)FS | 41 | (57)SF | 66F | [6.4]C | (70)S | 82 | 77 | 84 | 9.0 | 8.0 | 73 | 7.1 | 6.5 | (50)S | 42F | 3.5 | (28)JB | (25)JB |
| 5 | (2.1)F | B | B | B | B | (20)SF | 40F | 53 | 66F | 7.1 | 77 | 75 | 80 | 85 | 8.1 | 89 | 8.2 | 8.4 | (7.1)S | 52 | (34)S | 31 | 29 | (28)A |
| 6 | 26F | (2.4)JF | [20]T | (1.8)SF | 1.7F | (1.7)F | 34F | (5.6)SF | (53)SF | 6.1F | 6.5F | 76F | 82 | 8.3 | (8.9)S | 8.7 | (7.7)S | (6.9)S | (5.4)SF | (46)SF | 3.7F | (3.3)SF | [3.3]C | C |
| 7 | C | 24F | 22F | (22)F | (20)SF | (31)SF | (4.5)S | 58 | (6.6)S | (6.9)S | 8.0 | 7.8 | 84 | 9.0 | 8.5 | 7.7 | 75 | 6.8 | (6.0)S | (56)S | 46 | 44 | 40 | (3.8)JS |
| 8 | 34 | 33F | 30F | 27F | 2.1F | 23F | 5.0 | (66)H | 70 | (8.8)H | 81 | 8.2 | 84 | 9.2 | 85 | 8.4 | 86 | 8.2 | (6.8)S | (60)S | 43 | 41 | (40)JS | (39)JS |
| 9 | (39)JS | (39)JS | 36 | (3.2)J | 2.1F | 18 | 4.4F | (4.5)S | 7.6F | (7.5)R | 75 | 7.9 | 8.2 | 8.4 | (9.0)S | (9.0)S | 9.0 | 84 | (6.5)S | 52F | 45F | 4.0F | (42)SF | (4.0)SF |
| 10 | 31F | 34F | 34F | 32F | 30F | (31)SF | 49F | 66 | 7.4 | (8.3)P | 83 | 86 | 91 | 8.4H | 9.3 | (96)JS | (9.2)S | (84)S | (6.6)SF | 55F | (4.6)SF | 4.4F | 4.1F | (42)SF |
| 11 | (39)SF | 41F | (38)SF | 37F | 34F | 32F | 50F | 70 | 7.8 | 80 | 87 | 90 | 92 | 9.4 | (9.8)S | (10.0)S | (9.5)S | 8.9 | 68F | 62F | 52 | 5.0 | (49)J | (48)J |
| 12 | 4.5 | 47 | 46 | 40 | 2.8 | 2.3 | 51 | 7.2 | 8.9 | 9.7 | 9.6 | 10.0 | 9.7 | 9.7 | (9.5)S | (9.5)S | (9.5)S | (9.0)S | 7.1 | 62 | 49 | (4.4)J | 4.1 | (39)JS |
| 13 | 40 | (39)S | 37 | 34 | 32F | 3.1F | 52 | 7.2 | 8.3 | 8.2 | 87 | 10.3 | 108 | 11.1 | 11.0 | [10.6]C | 10.0 | (8.8)S | (6.8)JS | (6.0)S | 55 | 5.2 | 5.2 | 5.0 |
| 14 | 5.1 | 50 | 4.2 | 3.2 | (2.5)S | 22 | (46)S | (6.1)S | 8.0Z | 9.3 | 9.7 | (10.4)S | 108 | 11.0 | 9.5 | 7.7 | (7.5)S | (7.0)S | (6.1)S | 4.7 | 48 | 4.7 | 4.4F | 4.7 |
| 15 | 4.6 | (4.1)F | 24F | 20F | (2.2)SF | 2.5 | 48 | 7.6 | 86 | 9.0 | 9.0 | 93 | 9.8 | 9.6 | 95 | 9.1 | 82 | 79 | 65F | (5.0)S | 44 | 4.2F | 4.1F | 4.1F |
| 16 | 4.0F | 34F | 32F | 3.0F | (20)F | 1.8F | 40F | 47FK | (52)SK | 52FK | K(58)SF | 66FK | 6.6FK | 6.6K | 7.0FK | 6.4K | (66)SK | (6.0)SK | (50)SK | 48F | 45 | (40)S | (3.9)S | 3.9 |
| 17 | (3.8)S | (3.5)FP | 31F | 22F | 1.8F | 20F | 4.3F | 66F | 70F | 7.6F | 86F | 10.1 | 10.2 | 10.7 | 108 | (10.7)S | (99)S | (8.9)S | 6.5F | (53)S | 48 | (4.7)S | 4.3 | 4.4 |
| 18 | (42)S | 4.1F | 38F | 32F | 2.1F | (1.9)SF | (39)SF | 7.0F | 7.2F | 7.6F | 90F | 9.2 | 9.2 | 10.0 | 98 | (9.4)S | (9.0)S | 7.6 | (6.3)SF | 52F | 4.5 | 4.4 | 41F | 4.1F |
| 19 | (38)SF | 36F | 3.3F | (31)JF | 27F | (2.2)JF | 42F | 6.6F | 7.4 | 82 | 82 | 90 | 9.1F | 96 | (9.3)S | (9.6)S | (9.1)S | (8.0)S | (54)SF | 5.2F | (47)SF | (44)SF | (4.0)SF | (3.8)SF |
| 20 | (3.5)SF | (35)SF | (37)SF | 35F | 30F | 25F | 44F | 63F | 6.7F | 7.3 | 7.6 | 8.4 | (94)S | (9.2)S | (9.2)S | (9.9)S | (8.7)S | (7.5)S | (5.8)F | (52)S | (41)JS | (3.9)SF | (3.9)SF | (39)SF |
| 21 | (38)SF | (37)JS | B | B | [32]B | (32)SF | (50)S | (61)S | (6.8)S | (80)S | (86)S | (8.9)S | (90)S | (9.2)S | (90)S | (8.6)S | (84)S | (7.2)S | (6.0)F | (55)S | (47)S | (42)J | (40)S | (3.9)JB |
| 22 | (3.2)JB | B | B | B | B | (29)SF | (4.2)F | (68)S | (79)S | (80)S | (80)S | (8.5)S | (9.6)S | (98)S | (10.2)S | (90)S | (77)S | (83)S | (7.0)SF | (69)S | (6.6)S | (57)S | (56)S | (55)S |
| 23 | (51)S | (49)S | (43)F | (39)SF | (35)F | (30)F | (43)SF | (68)S | (7.2)S | (86)S | (87)S | 8.7 | 9.3 | (9.2)S | (,3)SZ | (9.3)S | 81 | (7.3)J | (58)JS | 51 | 46 | 42 | (4.2)F | 3.7 |
| 24 | (37)P | (37)P | M | M | M | [20]S | 41H | 6.6 | M | M | 82 | (88)R | .92 | 9.2 | (9.7)S | (9.4)S | 84 | (68)S | (5.6)S | 42 | 34 | 35 | (3.5)S | 3.5 |
| 25 | 35 | 35 | 34 | 33 | 3.0F | 22 | 42V | 63Z | 69 | 7.8 | 81 | 84 | 9.5 | 9.1 | 84 | 86 | 8.2 | 7.0 | 48 | 44 | 36 | 3.7 | (3.4)J | 3.6 |
| 26 | 36 | 36 | 34 | 33 | 3.1 | 3.1 | (45)J | (66)V | 6.8 | 8.6 | 7.8 | 84 | 86 | 94 | 95 | 8.8 | 82 | 66 | (5.7)S | 43 | 36 | 36 | 3.5 | 3.4 |
| 27 | 3.3 | 3.4 | 34 | 34 | 33 | 33F | 4.7F | 7.0F | 7.9V | 8.1V | 83 | 8.7V | 9.1 | 92 | 9.0 | 9.3 | (8.1)S | (6.6)S | (59)S | (5.8)S | (49)S | 45 | 43 | (4.2)S |
| 28 | 4.3K | 43K | 40K | 32K | 20FK | 30FK | 34FK | 4.1FK | 4.1K | L3.6GK | 40FK | 46FK | 4.6K | L4.0GK | 53K | 6.0FK | K(93)SF | 8.4FK | K(6.9)SF | [4.4]FK | 2.0FK | (2.1)FK | (25)FK | (26)F |
| 29 | K(25)SF | K(27)FB | K[1.9]FB | K(1.5)FB | (1.7)FK | (1.5)FK | 3.7FK | 66K | (81)FK | 89FK | 96K | 10.3K | 11.7K | 11.4K | K(10.4)JS | (9.1)SK | MK | MK | MK | 29FK | 30FK | (2.5)FK | K[2.6]SF | K(2.6)SF |
| 30 | 30FK | (25)FK | [24]FK | K(2.1)JF | 1.9FK | [20]BK | 3.6FK | (68)SK | 8.6FK | 9.1K | 96K | 9.9K | 11.9K | 10.8K | 11.4K | 11.8K | K(10.3)SP | 86FK | K(5.4)SF | K(48)VF | K(3.1)SF | K(23)SF | K(18)JS | 1.8K |
| 31 | SK | SFK | SFK | (18)SK | 1.6FK | EK | 3.0FK | 45FK | 5.2FK | 60FK | K69ZF | 9.1FK | 100K | (9.8)SK | 8.9K | (10.1)SK | (10.1)SK | (8.9)SK | (6.7)SK | 4.6K | 35K | 2.6FK | K(1.9)SF | K(1.7)JF |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Median | (3.8) | 3.5 | 3.4 | 3.2 | 2.2 | 2.2 | 4.3 | 6.6 | 7.1 | 8.0 | 8.1 | 8.6 | 9.1 | 9.2 | 9.2 | (9.1) | (8.4) | (7.8) | (6.2) | 5.2 | 4.4 | 4.0 | (4.0) | (3.8) |
| Count | 28 | 27 | 26 | 25 | 26 | 31 | 31 | 31 | 30 | 30 | 31 | 31 | 31 | 31 | 31 | 31 | 30 | 30 | 30 | 31 | 31 | 31 | 31 | 30 |

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

# TABLE 55

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

Form adopted June 1946

## IONOSPHERIC DATA

h'F1 (Characteristic), Km (Unit) October (Month), 1950

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | QK | 240K | 230HK | 210HK | 200HK | 220HK | 240K | 240K | 260K | 270K | | | | | | |
| 2 | | | | | | | | | 230K | 220K | 210K | 190K | 210K | 240K | 260K | 230K | 220K | 250K | | | | | | |
| 3 | | | | | | | | | 230 | 210 | 200 | 200H | 200 | 200 | 210H | 230 | 230 | | | | | | | |
| 4 | | | | | | | | | 230 | 220 | 220 | 210 | 210 | 210 | 220 | 230 | 230 | | | | | | | |
| 5 | | | | | | | | | 230 | 210 | [200]A | 200 | 220 | 200 | [220]A | 230 | Q | | | | | | | |
| 6 | | | | | | | | | 230 | 210 | 210 | 200 | 210 | 210H | 220 | 220 | 240 | | | | | | | |
| 7 | | | | | | | | | 230 | 210 | 210 | 200 | 230 | 220 | 210H | 230 | 250 | | | | | | | |
| 8 | | | | | | | | | 230 | 210 | 220 | [220]C | 220 | 220H | Q | Q | Q | | | | | | | |
| 9 | | | | | | | | | 240 | 210 | 200 | 190H | 230 | 230 | 210 | 230 | 230 | | | | | | | |
| 10 | | | | | | | | | 220 | 210 | 200 | 210 | 190H | 220 | 210 | 230 | Q | | | | | | | |
| 11 | | | | | | | | | 230 | 220 | 190 | 200 | 200 | 210 | 220 | 240 | Q | | | | | | | |
| 12 | | | | | | | | | Q | 210 | 200H | 200 | 210 | 200H | 220 | 220 | 240 | | | | | | | |
| 13 | | | | | | | | | Q | 220 | 210 | 200H | 180H | 240 | 230 | 220 | 230 | | | | | | | |
| 14 | | | | | | | | | 260 | (220)A | (220)A | (220)A | (230)A | 240 | 230 | [240]A | (240)A | | | | | | | |
| 15 | | | | | | | | | Q | 220 | 210 | 200 | 200 | (210)A | 220 | 220 | Q | | | | | | | |
| 16 | | | | | | | | | 250K | 230K | 200HK | 250K | 240K | [230]AK | 230K | 250K | 270K | | | | | | | |
| 17 | | | | | | | | | Q | Q | Q | 220 | 240 | 210 | 240 | 220 | Q | | | | | | | |
| 18 | | | | | | | | | Q | 210 | 210 | 210H | 200 | 240 | A | A | Q | | | | | | | |
| 19 | | | | | | | | | 230 | 230 | 210 | 210 | 190 | (240)A | 230 | (240)A | Q | | | | | | | |
| 20 | | | | | | | | | 220 | 210 | 210 | 190H | 200 | 200H | Q | Q | Q | | | | | | | |
| 21 | | | | | | | | | Q | (240)B | 230 | 220 | [220]B | 220 | (230)B | 230 | Q | | | | | | | |
| 22 | | | | | | | | | B | B | (210)B | (210)B | [220]B | (230)B | B | Q | Q | | | | | | | |
| 23 | | | | | | | | | Q | 200 | 180 | 180H | 190 | 190H | 200 | 210 | Q | | | | | | | |
| 24 | | | | | | | | | 210 | M | M | 190H | 200 | 200H | 210 | 220H | Q | | | | | | | |
| 25 | | | | | | | | | Q | 200H | 190H | 200H | 190 | 200H | 230 | 230 | Q | | | | | | | |
| 26 | | | | | | | | | Q | 220 | 200 | 200 | 190H | 200H | 220 | 230 | Q | | | | | | | |
| 27 | | | | | | | | | Q | 200 | 200 | 200H | 200H | 210 | 210 | 220 | Q | | | | | | | |
| 28 | | | | | | | | | 280K | 230K | 230K | 260K | 250HK | 230K | 230K | 230K | 230K | | | | | | | |
| 29 | | | | | | | | | QK | 220K | 210K | [210]BK | 210K | 210K | 200K | 210K | QK | | | | | | | |
| 30 | | | | | | | | | 220K | 220K | 200HK | 200K | 220K | 200K | 220K | 240K | QK | | | | | | | |
| 31 | | | | | | | | | 230K | 220K | 200K | 200HK | 220HK | 220K | 220K | QK | QK | | | | | | | |
| Median | | | | | | | | | 230 | 220 | 210 | 200 | 210 | 210 | 220 | 230 | 240 | — | | | | | | |
| Count | | | | | | | | | 18 | 28 | 29 | 31 | 31 | 31 | 27 | 26 | 12 | 2 | | | | | | |

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

# TABLE 56

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

## IONOSPHERIC DATA

foFI (Characteristic), Mc (Unit), October (Month), 1950

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B, R.F.B.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | Q K | 4.1 K | (3.6) S K | (4.0) S K | 4.1 K H | 4.1 K H | 4.0 K | 4.0 K | 3.9 K | L K | | | | | | |
| 2 | | | | | | | | | (3.8) S K | 4.1 K | 4.2 K | 4.6 K | 4.7 K | 4.5 K | 4.6 K | (4.3) P K | L K | L K | | | | | | |
| 3 | | | | | | | | | L | (4.1) P | 4.0 | [4.4] L | (4.7) P | 4.4 | 4.0 H | 4.1 | L | | | | | | | |
| 4 | | | | | | | | | L | L | 4.5 | 4.4 | 4.5 | 4.5 | 4.4 | L | L | | | | | | | |
| 5 | | | | | | | | | L | 4.3 | L | L | (4.6) P | 4.3 | L | L | Q | | | | | | | |
| 6 | | | | | | | | | L | L | 4.8 | 4.6 | 4.7 | 4.7 H | L | L | L | | | | | | | |
| 7 | | | | | | | | | L | L | 4.5 | 4.6 | 5.0 | 4.6 | 4.5 H | L | L | | | | | | | |
| 8 | | | | | | | | | L | L | L | C | L | L | Q | Q | Q | | | | | | | |
| 9 | | | | | | | | | L | (4.3) P | 4.5 | 4.4 H | L | L | L | L | L | | | | | | | |
| 10 | | | | | | | | | L | L | L | 3.8 | 3.6 | L | L | L | Q | | | | | | | |
| 11 | | | | | | | | | L | L | L | L | L | L | L | L | Q | | | | | | | |
| 12 | | | | | | | | | Q | L | (4.1) H | L | L | L | L | L | L | | | | | | | |
| 13 | | | | | | | | | Q | L | L | 5.0 | L | L | L | L | L | | | | | | | |
| 14 | | | | | | | | | L | L | L | L | (4.7) P | (4.7) P | (4.3) P | (4.1) P | L | | | | | | | |
| 15 | | | | | | | | | Q | L | (4.4) P | L | L | L | L | L | Q | | | | | | | |
| 16 | | | | | | | | | L K | L K | 4.6 K | 4.4 K | 4.4 K | 4.4 K | 4.5 K | 4.1 K | L K | | | | | | | |
| 17 | | | | | | | | | Q | Q | Q | 4.8 | (4.8) P | L | L | L | Q | | | | | | | |
| 18 | | | | | | | | | Q | L | L | L | 4.3 | L | L | L | Q | | | | | | | |
| 19 | | | | | | | | | L | L | L | 4.5 | (4.6) P | L | L | L | Q | | | | | | | |
| 20 | | | | | | | | | L | L | L | L | L | L | Q | Q | Q | | | | | | | |
| 21 | | | | | | | | | Q | L | L | L | L | L | L | L | Q | | | | | | | |
| 22 | | | | | | | | | L | B | L | L | L | L | L | Q | Q | | | | | | | |
| 23 | | | | | | | | | Q | L | (4.0) P | 4.5 | L | L | L | L | Q | | | | | | | |
| 24 | | | | | | | | | L | M | M | L | L | L | L | L | Q | | | | | | | |
| 25 | | | | | | | | | Q | L | L | L | L | L | L | L | Q | | | | | | | |
| 26 | | | | | | | | | Q | L | L | L | L | L | L | L | Q | | | | | | | |
| 27 | | | | | | | | | Q | L | L | L | L | (4.5) P | L | L | Q | | | | | | | |
| 28 | | | | | | | | | (3.6) S K | 3.7 K | 3.6 K | 3.7 K | (4.0) S K | 4.0 K | 4.0 K | 4.0 K | 3.6 K | | | | | | | |
| 29 | | | | | | | | | Q K | L K | L K | B K | L K | 4.4 K | L K | L K | Q K | | | | | | | |
| 30 | | | | | | | | | L K | L K | L K | L K | L K | 3.9 K | L K | L K | Q K | | | | | | | |
| 31 | | | | | | | | | L K | L K | L K | 4.4 K | L K | L K | L K | Q K | Q K | | | | | | | |
| Median | | | | | | | | | — | 4.1 | 4.3 | 4.4 | 4.6 | 4.4 | 4.4 | 4.1 | — | — | | | | | | |
| Count | | | | | | | | | 2 | 6 | 12 | 15 | 14 | 13 | 8 | 6 | 2 | | | | | | | |

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

Form adopted June 1946

# TABLE 57

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

## IONOSPHERIC DATA

h'E (Characteristic), Km (Unit), October (Month), 1950

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | 110$^{K}$ | 120$^{K}$ | (110)$^{A}_{K}$ | 110$^{K}$ | 110$^{K}$ | 100$^{K}$ | (100)$^{A}_{K}$ | 100$^{K}$ | 100$^{K}$ | 100$^{K}$ | 110$^{K}$ | (130)$^{S}_{K}$ | | | | | | |
| 2 | | | | | | | | 120$^{K}$ | 110$^{K}$ | 110$^{K}$ | 110$^{K}$ | 110$^{K}$ | 110$^{K}$ | 100$^{K}$ | 100$^{K}$ | (110)$^{B}_{K}$ | (110)$^{B}_{K}$ | (120)$^{S}_{K}$ | (130)$^{S}_{K}$ | | | | | |
| 3 | | | | | | | | 120 | 110 | 110 | 110 | 110 | (120)$^{A}$ | 100 | 110 | 110 | (110)$^{B}$ | (120)$^{A}$ | | | | | | |
| 4 | | | | | | | | 120 | 110 | 110 | (110)$^{B}$ | [110]$^{C}$ | 110 | 100 | [100]$^{B}$ | (110)$^{B}$ | 110 | 120 | | | | | | |
| 5 | | | | | | | | (120)$^{B}$ | 110 | 110 | (110)$^{A}$ | (110)$^{A}$ | 100 | 100 | 100 | 110 | 110 | S | | | | | | |
| 6 | | | | | | | | 120 | 110 | 110 | 100 | 100 | 100 | (100)$^{A}$ | (100)$^{A}$ | 110 | 110 | (120)$^{S}$ | | | | | | |
| 7 | | | | | | | | 120 | 110 | 100 | (110)$^{B}$ | [110]$^{B}$ | [110]$^{B}$ | (110)$^{B}$ | (110)$^{B}$ | 110 | B | | | | | | | |
| 8 | | | | | | | | (120)$^{B}$ | 110 | (110)$^{B}$ | 110 | [100]$^{C}$ | 100 | 100 | 100 | 110 | 110 | (120)$^{B}$ | | | | | | |
| 9 | | | | | | | | 110 | (100)$^{A}$ | (100)$^{A}$ | 100 | 100 | 110 | 110 | 110 | 110 | 110 | 110 | | | | | | |
| 10 | | | | | | | | 130 | 110 | 100 | 110 | 110 | 110 | 110 | 110 | 120 | 110 | (110)$^{A}$ | | | | | | |
| 11 | | | | | | | | (110)$^{A}$ | 110 | 110$^{H}$ | 100$^{H}$ | 110 | 110 | (110)$^{A}$ | 110 | 110 | 110 | (120)$^{S}$ | | | | | | |
| 12 | | | | | | | | 110 | 110 | 110 | 110 | 100 | 100 | (110)$^{A}$ | 110 | 110 | 110 | 120 | | | | | | |
| 13 | | | | | | | | (120)$^{S}$ | 100 | (100)$^{A}$ | 100 | 110 | 110 | 100 | 100 | 110 | 110 | (130)$^{S}$ | | | | | | |
| 14 | | | | | | | | 110 | 110 | 100 | 100 | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | 110 | 110 | (110)$^{A}$ | | | | | | |
| 15 | | | | | | | | (110)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | 110 | (100)$^{A}$ | | | | | | |
| 16 | | | | | | | | (110)$^{A}_{K}$ | (100)$^{A}_{K}$ | 100$^{K}$ | 110$^{K}$ | 110$^{K}$ | 110$^{K}$ | 110$^{K}$ | 110$^{K}$ | 110$^{K}$ | 110$^{K}$ | S$^{K}$ | | | | | | |
| 17 | | | | | | | | 120 | (110)$^{A}$ | 110 | 110 | 110 | 100 | (110)$^{B}$ | (110)$^{B}$ | (110)$^{B}$ | [100]$^{B}$ | (100)$^{A}$ | | | | | | |
| 18 | | | | | | | | (130)$^{S}$ | 110 | 110 | (110)$^{A}$ | (100)$^{A}$ | 100 | (110)$^{B}$ | (110)$^{B}$ | (110)$^{B}$ | 120 | (120)$^{A}$ | | | | | | |
| 19 | | | | | | | | B | 100 | 100 | (100)$^{A}$ | (110)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{B}$ | (100)$^{A}$ | 110 | (100)$^{A}$ | | | | | | |
| 20 | | | | | | | | (110)$^{A}$ | 120 | (110)$^{A}$ | (100)$^{A}$ | (110)$^{A}$ | 100 | (100)$^{A}$ | 100 | 110 | (100)$^{A}$ | S | | | | | | |
| 21 | | | | | | | | M | M | M | M | M | M | M | M | (100)$^{B}$ | (100)$^{A}$ | B | | | | | | |
| 22 | | | | | | | | M | M | M | M | M | M | M | M | M | (100)$^{B}$ | (100)$^{A}$ | | | | | | |
| 23 | | | | | | | | (130)$^{S}$ | 100 | (100)$^{A}$ | (100)$^{A}$ | 100 | 100 | (100)$^{A}$ | 100 | 100 | 100 | 120 | | | | | | |
| 24 | | | | | | | | B | 100 | M | M | 100 | 100 | 110 | 110 | 110 | 120 | | | | | | | |
| 25 | | | | | | | | 110 | (110)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | 100 | (100)$^{A}$ | (100)$^{A}$ | 110 | 110 | 110 | | | | | | | |
| 26 | | | | | | | | (110)$^{A}$ | 110 | (110)$^{A}$ | (110)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (110)$^{A}$ | | | | | | |
| 27 | | | | | | | | (110)$^{A}$ | (110)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | 110 | 100 | (100)$^{A}$ | (100)$^{A}$ | (100)$^{A}$ | S | | | | | | |
| 28 | | | | | | | | (120)$^{S}_{K}$ | 110$^{K}$ | 100$^{K}$ | 100$^{K}$ | 100$^{K}$ | (110)$^{B}_{K}$ | 110$^{K}$ | (100)$^{A}_{K}$ | 110$^{K}$ | 120$^{K}$ | (130)$^{S}_{K}$ | | | | | | |
| 29 | | | | | | | | (120)$^{B}_{K}$ | 110$^{K}$ | (120)$^{B}_{K}$ | 100$^{K}$ | [100]$^{B}_{K}$ | (110)$^{B}_{K}$ | [110]$^{B}_{K}$ | (110)$^{B}_{K}$ | 110$^{K}$ | 120$^{K}$ | M$^{K}$ | | | | | | |
| 30 | | | | | | | | S$^{K}$ | (120)$^{B}_{K}$ | 110$^{K}$ | (100)$^{B}_{K}$ | (110)$^{B}_{K}$ | B$^{K}$ | B$^{K}$ | B$^{K}$ | (120)$^{B}_{K}$ | B$^{K}$ | | | | | | | |
| 31 | | | | | | | | S$^{K}$ | (120)$^{S}_{K}$ | [120]$^{B}_{K}$ | (110)$^{B}_{K}$ | 110$^{K}$ | (110)$^{B}_{K}$ | (110)$^{S}_{K}$ | (110)$^{S}_{K}$ | 100$^{K}$ | (110)$^{B}_{K}$ | | | | | | | |
| Median | | | | | | | – | (120) | 110 | 110 | 100 | 100 | 100 | (100) | 100 | 110 | 110 | (120) | – | | | | | |
| Count | | | | | | | 1 | 25 | 29 | 28 | 28 | 29 | 28 | 28 | 28 | 30 | 29 | 20 | 1 | | | | | |

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

Form adopted June 1946

# TABLE 58

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

## IONOSPHERIC DATA

foE (Characteristic), Mc (Unit), October (Month), 1950

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | $1.5^{K}$ | $2.2^{K}$ | $2.6^{K}$ | $2.8^{K}$ | $3.0^{K}$ | $3.0^{K}$ | $(3.0)^{A}_{K}$ | $3.1^{K}$ | $3.0^{K}$ | $2.7^{K}$ | $2.3^{K}$ | $1.9^{K}$ | | | | | | |
| 2 | | | | | | | | $2.1^{K}$ | $2.5^{K}$ | $2.7^{K}$ | $2.7^{K}$ | $3.0^{K}$ | $3.1^{K}$ | $3.0^{K}$ | $3.0^{K}$ | $(2.7)^{B}_{K}$ | $2.4^{K}$ | $(2.0)^{F}_{K}$ | $(1.3)^{S}_{K}$ | | | | | |
| 3 | | | | | | | | 2.0 | 2.6 | 2.9 | 3.0 | 3.0 | $[3.0]^{A}$ | 3.0 | 3.1 | 2.9 | B | A | | | | | | |
| 4 | | | | | | | | 2.1 | 2.5 | 2.7 | 2.8 | C | F | $(3.0)^{F}$ | 3.0 | 2.8 | 2.5 | 2.0 | | | | | | |
| 5 | | | | | | | | B | 2.5 | 3.0 | $(3.0)^{A}$ | $[3.0]^{A}$ | $(3.1)^{B}$ | 3.1 | 3.0 | 2.9 | 2.5 | 1.9 | | | | | | |
| 6 | | | | | | | | 2.1 | 2.5 | $2.9^{F}$ | 3.0 | $(3.1)^{F}$ | 3.2 | $[3.1]^{A}$ | $(3.0)^{A}$ | $(2.7)^{S}$ | 2.5 | 2.0 | | | | | | |
| 7 | | | | | | | | 2.1 | 2.4 | 2.7 | $(2.8)^{B}$ | $[3.0]^{B}$ | $[3.1]^{B}$ | $(3.1)^{B}$ | $(3.0)^{B}$ | $2.9^{F}$ | B | | | | | | | |
| 8 | | | | | | | | B | 2.5 | $(2.9)^{B}$ | $(3.0)^{F}$ | $[3.0]^{C}$ | 3.1 | 3.2 | 3.2 | 2.9 | 2.5 | 1.8 | | | | | | |
| 9 | | | | | | | | 2.1 | $(2.5)^{A}$ | $(2.9)^{A}$ | 2.9 | $(3.0)^{B}$ | $(3.2)^{B}$ | 3.3 | 3.1 | 3.0 | 2.4 | 1.8 | | | | | | |
| 10 | | | | | | | | 2.0 | 2.5 | 2.9 | $(3.0)^{P}$ | $[3.1]^{B}$ | 3.2 | 3.2 | 3.2 | 3.0 | 2.6 | A | | | | | | |
| 11 | | | | | | | | 2.2 | 2.6 | $3.0^{H}$ | $3.2^{H}$ | 3.3 | 3.3 | 3.3 | 3.1 | 3.0 | 2.5 | $(1.7)^{B}$ | | | | | | |
| 12 | | | | | | | | 1.8 | 2.5 | $2.9^{F}$ | $(3.0)^{B}$ | $(3.1)^{B}$ | B | A | 3.1 | 2.9 | 2.5 | 1.8 | | | | | | |
| 13 | | | | | | | | 1.9 | $(2.5)^{B}$ | 2.9 | 3.0 | 3.1 | 3.3 | 3.2 | 3.1 | 2.9 | 2.5 | 1.7 | | | | | | |
| 14 | | | | | | | | 2.0 | $2.5^{F}$ | 2.8 | A | A | A | $(3.1)^{A}$ | $(3.0)^{A}$ | 2.9 | 2.4 | A | | | | | | |
| 15 | | | | | | | | 1.9 | A | A | $(3.0)^{A}$ | 3.1 | 3.2 | 3.1 | 3.0 | 2.8 | $(2.4)^{F}$ | A | | | | | | |
| 16 | | | | | | | | $2.0^{K}$ | $2.5^{K}$ | $2.8^{K}$ | $3.0^{K}$ | $3.0^{K}$ | $3.0^{K}$ | $3.0^{K}$ | $3.0^{K}$ | $2.7^{K}$ | $2.3^{K}$ | $1.7^{K}$ | | | | | | |
| 17 | | | | | | | | 1.7 | 2.4 | 2.8 | 3.0 | 3.1 | $(3.2)^{B}$ | $(3.1)^{B}$ | 3.1 | 2.8 | $(2.3)^{B}$ | B | | | | | | |
| 18 | | | | | | | | 1.8 | $(2.4)^{B}$ | $(2.6)^{B}$ | $[2.8]^{A}$ | 3.1 | 3.3 | 3.2 | 3.1 | 2.9 | 2.5 | A | | | | | | |
| 19 | | | | | | | | B | 2.4 | 2.5 | A | A | A | A | $(2.8)^{B}$ | $[2.6]^{A}$ | 2.4 | A | | | | | | |
| 20 | | | | | | | | A | $2.5^{H}$ | A | A | $(3.1)^{A}$ | 3.1 | 3.1 | 3.0 | 2.7 | $[2.2]^{A}$ | 1.8 | | | | | | |
| 21 | | | | | | | | M | M | M | M | M | M | M | M | $(2.7)^{B}$ | A | B | | | | | | |
| 22 | | | | | | | | M | M | M | M | M | M | M | M | M | $(2.4)^{B}$ | A | | | | | | |
| 23 | | | | | | | | 1.8 | $[2.2]^{B}$ | 2.7 | 2.9 | 3.0 | 3.1 | 3.0 | 2.9 | 2.6 | 2.3 | $(1.5)^{S}$ | | | | | | |
| 24 | | | | | | | | B | $(2.2)^{B}$ | M | M | 3.0 | 3.0 | 3.0 | 2.9 | 2.6 | 2.2 | | | | | | | |
| 25 | | | | | | | | 1.8 | A | A | A | $3.0^{F}$ | 3.0 | 3.0 | $2.8^{F}$ | 2.6 | 2.2 | | | | | | | |
| 26 | | | | | | | | A | $(2.0)^{A}$ | A | A | 3.0 | 3.1 | $(3.0)^{A}$ | 3.0 | $(2.7)^{A}$ | $(2.2)^{A}$ | A | | | | | | |
| 27 | | | | | | | | A | A | A | $(3.0)^{A}$ | $[3.1]^{A}$ | 3.2 | 3.1 | 3.0 | 2.7 | 2.3 | S | | | | | | |
| 28 | | | | | | | | $1.7^{K}$ | $2.2^{K}$ | $2.5^{K}$ | $2.7^{K}$ | $(3.0)^{B}_{K}$ | $3.0^{K}$ | $2.9^{K}$ | $2.8^{K}$ | $2.5^{K}$ | $2.1^{K}$ | $(1.5)^{S}_{K}$ | | | | | | |
| 29 | | | | | | | | $(1.7)^{B}_{K}$ | $2.3^{K}$ | $(2.5)^{B}_{A}$ | $2.8^{K}$ | $[3.0]^{B}_{K}$ | $(3.1)^{B}_{K}$ | $(3.0)^{B}_{A}$ | $(2.8)^{B}_{K}$ | $2.6^{A}$ | $2.2^{K}$ | $M^{K}$ | | | | | | |
| 30 | | | | | | | | $(1.7)^{S}_{K}$ | $(2.3)^{B}_{K}$ | $(2.5)^{B}_{A}$ | $(2.8)^{B}_{A}$ | $(3.0)^{B}_{K}$ | $[3.0]^{B}_{K}$ | $3.0^{K}$ | $2.9^{A}$ | $2.6^{A}$ | $(2.1)^{B}_{K}$ | | | | | | | |
| 31 | | | | | | | | $(1.7)^{S}_{K}$ | $2.2^{K}$ | $[2.5]^{B}_{K}$ | $(2.7)^{B}_{A}$ | $3.0^{K}$ | $3.1^{K}$ | $3.0^{K}$ | $2.9^{K}$ | $(2.7)^{S}_{K}$ | $(2.2)^{B}_{K}$ | | | | | | | |
| Median | | | | | | | – | 2.0 | 2.5 | 2.8 | 3.0 | 3.0 | 3.1 | 3.1 | 3.0 | 2.7 | 2.4 | 1.8 | – | | | | | |
| Count | | | | | | | 1 | 22 | 26 | 23 | 23 | 26 | 25 | 27 | 29 | 30 | 28 | 14 | 1 | | | | | |

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

# TABLE 59

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

## IONOSPHERIC DATA

Form adopted June 1946

Es (Characteristic), Mc,Km (Unit), October (Month), 1950

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | G | G | 20/130 | 16F/130 | G | 32/110 | G | G | 59/110 | G | G | G | 62Y/100 | G | 63/120 | G | G | G | G | G | G | G | G | G |
| 2 | G | G | G | G | G | G | G | G | G | G | G | 98Y/120 | 72/100 | G | G | G | G | G | G | G | G | 47F/180 | 30F/160 | 27F/170 |
| 3 | 33/170 | G | G | 4.0/120 | 42/110 | B | 18F/120 | G | 78/120 | G | G | G | 70Y/120 | G | 68Y/100 | G | G | 23/120 | G | G | G | G | G | G |
| 4 | G | G | G | G | 69/170 | G | G | G | 110/100 | G | G | C | G | 56Y/110 | G | G | G | 30/130 | 30/110 | G | 53Y/100 | G | G | G |
| 5 | G | B | B | 60/120 | B | G | G | G | G | G | 66Y/110 | 30/110 | 72Y/100 | G | 3.7/120 | G | 39/130 | 42/120 | 25Y/120 | G | G | G | G | 49/120 |
| 6 | 60/120 | G | 25/130 | 1.3/120 | 114/110 | 2.3/110 | 31Y/110 | G | G | G | G | G | G | 3.7/100 | 25/100 | G | G | G | G | G | G | 34/110 | G | 32/110 |
| 7 | C | G | G | 24/110 | 28Y/110 | 50/110 | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G |
| 8 | G | G | G | 25Y/110 | 30Y/100 | G | G | G | G | G | G | C | G | G | G | G | G | G | G | 18/110 | G | G | G | G |
| 9 | G | G | 25Y/100 | 3.5/100 | 14/100 | (15)S/110 | G | G | 2.7/100 | 54Y/100 | G | G | G | G | G | G | G | G | 66Y/110 | G | G | G | G | G |
| 10 | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | 20/110 | G | G | G | G | G | G |
| 11 | G | G | G | 14/110 | G | G | G | 21/100 | G | G | G | G | G | 31/110 | 90/130 | G | G | G | G | G | G | G | G | G |
| 12 | G | G | G | G | G | G | G | G | G | G | G | G | G | 57Y/110 | G | G | G | G | G | G | G | G | G | G |
| 13 | G | G | G | G | G | G | G | G | G | (5.7)S/100 | G | G | G | G | G | G | 38/130 | G | 19/110 | G | G | G | G | G |
| 14 | G | G | G | G | G | G | 51/170 | 35Y/110 | G | 4.0/110 | 4.0/100 | 56/100 | 4.3/100 | 59Y/100 | 6.0Y/100 | 4.3/120 | 58/130 | 50/110 | G | G | 83/110 | G | G | G |
| 15 | 50/110 | G | G | 13/110 | 1.3/100 | G | G | 2.0/110 | 32/100 | 80/100 | 36/100 | 2.7/100 | 56Y/100 | 2.5/100 | 23/100 | 18/100 | 3.5F/120 | 19/100 | 30Y/100 | G | 33Y/110 | 30Y/110 | 31Y/100 | (38)S/110 |
| 16 | 72/110 | 35/110 | G | G | G | 38/110 | G | 18/110 | 1.7/100 | 60/130 | G | G | G | 38/110 | 33/120 | G | 3.4Y/120 | 4.7/110 | G | G | G | G | G | G |
| 17 | G | G | G | G | G | G | G | G | 22/110 | G | G | G | G | G | G | G | G | 17/100 | 17/100 | G | G | G | G | G |
| 18 | G | G | G | G | G | G | G | G | G | G | 30/110 | 26/100 | G | G | 46/120 | 48/120 | 4.2/120 | 37/120 | 30/120 | 32/120 | 43/110 | G | 27/110 | G |
| 19 | G | G | 16/100 | 25/100 | 34/100 | G | G | G | G | G | 31/100 | 33/110 | 30/100 | 98Y/100 | G | 39Y/100 | G | 20/100 | 46/110 | 38/110 | 3.7Y/110 | 33/110 | (40)S/100 | 54/100 |
| 20 | G | 25/100 | 3.7Y/100 | 29Y/100 | 30/100 | 62Y/160 | G | 2.1/110 | G | 3.1/110 | 33/100 | 31/100 | G | 28/100 | 21/100 | G | 2.7/100 | G | G | G | G | 3.2Y/100 | G | G |
| 21 | G | G | G | B | G | G | G | G | G | G | G | G | G | G | G | G | 24/100 | G | G | G | G | G | G | G |
| 22 | G | G | B | B | B | G | G | G | G | G | G | G | G | G | G | G | G | 34Y/100 | G | G | G | G | G | G |
| 23 | G | G | G | G | G | G | G | G | G | 2.1/100 | 28/100 | G | G | 30/100 | G | G | G | G | G | G | G | G | 4.7/100 | G |
| 24 | G | G | G | M | M | M | G | G | G | M | M | G | G | G | G | G | G | G | G | G | G | G | G | G |
| 25 | G | G | G | G | G | G | G | 5.8Y/180 | 54Y/110 | 35Y/100 | 72Y/100 | G | 28/100 | 5.7Y/100 | 1.8/100 | 3.7/110 | G | G | G | G | G | G | G | G |
| 26 | G | G | 59Y/100 | 56Y/110 | 34/110 | (5.5)S/110 | G | 31Y/110 | 7.2Y/110 | 34Y/110 | 29/110 | 60Y/100 | 70Y/100 | 4.1/100 | 35Y/100 | 33Y/100 | 37/100 | 40/100 | G | G | G | 2.5Y/100 | G | G |
| 27 | G | 26/100 | 18/100 | G | 88Y/110 | 3.3/110 | 44F/110 | 31Y/110 | 36Y/110 | 68Y/110 | 6.3F/100 | 60/100 | 2.3/100 | 7.2/110 | 24/100 | 40Y/100 | 40/100 | G | G | G | G | G | G | G |
| 28 | G | G | G | G | G | G | G | G | G | G | G | 80Y/110 | 56Y/120 | G | 1.8/100 | 8.7Y/110 | G | G | G | G | G | G | G | G |
| 29 | G | G | G | G | G | G | G | G | G | G | G | G | 102Y/100 | G | G | G | G | M | M | G | G | G | G | G |
| 30 | G | G | 28/100 | 22/100 | G | G | G | G | G | G | G | G | 102Y/100 | G | G | 19/100 | G | G | 1.3Y/130 | 24/150 | (63)S/110 | G | (24)S/180 | G |
| 31 | G | G | G | G | 13/100 | 107Y/130 | G | G | G | 67Y/120 | G | 65/120 | G | 60/120 | G | G | G | G | G | G | G | G | G | G |
| Median | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| Count | 30 | 30 | 29 | 29 | 28 | 29 | 31 | 31 | 31 | 30 | 30 | 29 | 31 | 31 | 31 | 31 | 31 | 30 | 30 | 31 | 31 | 31 | 31 | 31 |

** MEDIAN fEs LESS THAN MEDIAN foE, OR LESS THAN LOWER FREQUENCY LIMIT OF RECORDER

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

# TABLE 60

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

## IONOSPHERIC DATA

(M1500)F2 (Characteristic), ____ (Unit), October (Month), 1950

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | (1.7)SK | (1.7)FK | 2.1FK | 1.9FK | F(1.8)SK | (1.8)FK | 1.9FK | 2.2FK | 2.0FK | 1.5FK | 1.4K | 1.6FK | 1.5K | GK | 1.5K | 1.5HK | 1.8K | 1.9K | 2.1K | 1.9K | (2.0)VK | 1.8K | S(1.7)FK | (1.7)SK |
| 2 | (1.7)SK | 1.8FK | 1.9FK | 2.0FK | FK | SFK | 1.9FK | 2.1FK | GK | 1.9HK | 1.9FK | 1.9K | F1.8HK | 1.9FK | S(1.7)FK | (2.1)SK | 2.1K | (2.0)SK | S(2.1)FK | 1.9FK | S(1.9)FK | S(1.8)FK | (1.8)FK | (1.8)FK |
| 3 | S(1.8)FK | S(1.7)FK | (1.8)FK | S(1.9)FK | BFK | BK | 2.1F | (2.3)S | 2.2 | 2.2 | 2.1H | 2.0 | 2.1 | 2.0F | (2.0)S | 2.0 | (2.0)SF | (2.2)SF | (2.1)SF | (2.3)S | (2.2)SF | (2.1)SF | 1.8F | (1.8)ZF |
| 4 | F | (1.7)SF | (1.8)FB | F | (1.7)B | 1.7F | 2.0 | 2.1F | 2.0F | 2.3F | 2.0 | 2.1 | 2.0 | 2.0 | 1.9 | 2.1 | (2.1)S | 2.1 | (2.1)S | 2.1 | (2.0)SF | 2.0F | 1.8 | (1.8)JD |
| 5 | (1.7)J | B | B | B | B | 1.8F | 2.1F | 2.3F | 2.2F | 2.1Z | 2.2 | (2.1)H | 2.1 | 2.1 | 2.1 | 2.0 | (2.1)SH | (2.1)S | (2.2)S | 2.2 | 2.0 | 1.8F | (1.9)S | (1.9)A |
| 6 | 1.8F | 1.9F | (2.0)JF | (1.9)SF | (1.9)F | 1.9F | 2.1F | 2.2F | 2.3F | 2.2F | (2.1)SF | 2.1 | 2.0 | 2.0 | 2.0 | (2.0)S | 2.2F | (2.3)S | (2.2)S | 1.9F | 2.1F | 1.9F | C | C |
| 7 | C | (2.0)SF | (1.6)SF | 1.8F | (2.0)SF | (2.0)SF | (1.9)P | 2.2F | 2.3F | 2.2H | 2.1 | 2.0V | 2.0 | 2.0 | 2.1 | 2.2 | 2.1 | 2.2 | 2.1 | 2.0F | 1.9 | 1.8 | 1.9 | C |
| 8 | C | C | C | C | C | C | C | C | C | (2.1)H | 2.2 | C | 2.0 | 2.0 | 2.0H | 2.1 | 2.1 | 2.2 | 2.2 | (2.1)S | 2.2 | 1.9 | (1.8)SJ | (1.8)JS |
| 9 | (1.9)JF | (1.9)JS | (1.9)JS | 2.0 | 2.1 | 2.0F | 2.0F | (2.3)F | 2.3 | (2.4)JZ | 2.3 | 2.2H | 2.1 | 2.0 | 2.0 | 2.1 | (2.1)S | 2.1F | (2.3)S | 2.1F | 1.9F | 1.9F | (1.9)FS | (1.9)FS |
| 10 | (1.8)SF | 1.8F | 1.8F | 1.9F | 1.9F | 2.0F | 2.0F | 2.2 | 2.3 | 2.4 | 2.3 | 2.1 | 2.1 | 2.0 | (2.0)S | 2.1 | 2.2 | 2.2 | (2.1)JS | 2.2F | 2.0F | 1.9F | 1.9F | (1.8)SF |
| 11 | 1.9F | (1.9)SF | (1.9)SF | 1.9F | 1.9F | 1.9F | 2.0 | (2.3)SF | 2.3 | 2.3 | 2.3 | 2.1 | 2.1 | 2.1 | 2.0 | 2.1 | (2.1)S | 2.1 | (2.2)S | 2.0F | 2.0 | 1.9F | (1.8)JF | 1.7 |
| 12 | 1.8 | 1.7 | 1.8 | 2.1 | 2.2 | (1.9)JS | 2.0 | 2.3 | 2.2Z | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.1 | (2.2)S | 2.1 | 2.0 | 2.0 | (2.0)JS | 1.9 | (1.8)JS |
| 13 | 1.8 | 1.8 | 1.9 | 2.1 | 2.0 | 2.0F | 2.0 | 2.3 | 2.2 | (2.3)S | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | (2.1)S | (2.1)S | (2.2)SP | (2.1)S | 2.1 | (2.0)JS | 1.8 | (1.8)S | 1.8 |
| 14 | 1.8 | (2.0)S | 2.0 | 2.0 | 2.1 | 1.7 | (1.8)JS | 2.2 | 2.2 | 2.0V | 2.0 | 2.0 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | (2.0)S | 2.0 | 2.0 | 1.7 | 1.7 | 1.7 | 1.8 |
| 15 | 1.9F | 2.2F | 2.4F | 2.0F | 1.9F | (1.8)S | 1.8 | 2.3 | 2.1V | 2.1 | 2.2 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | (2.2)S | 2.2 | (2.1)S | 2.2F | 1.9 | 1.8 | 1.9F | 1.8F |
| 16 | 1.8F | 1.9F | 1.9F | 2.0F | 1.8F | 1.9F | (2.1)SF | 2.2FK | 2.0K | 2.0FK | S(1.8)FK | 1.8FK | 1.9FK | 1.9FK | K(1.9)SF | 1.9FK | 2.0K | (2.0)SK | S(2.0)PK | 1.9 | 1.8 | 1.8 | (1.7)S | (1.7)S |
| 17 | (1.9)S | (2.0)SF | 2.0F | 2.1F | (1.8)JF | 1.8F | 1.8F | 2.3F | 2.1F | 2.3 | 2.1FH | 2.0 | 2.0 | 2.0 | (2.0)S | 2.0 | (2.1)S | (2.0)S | (2.2)S | 2.0F | 1.8 | (1.8)S | 1.9 | 1.9F |
| 18 | 1.9F | 1.9F | (2.1)SF | 2.0F | (2.2)JF | 1.9F | 2.0F | 2.1F | 2.3F | 2.1FZ | 2.1P | 2.2F | 2.1 | 2.0F | 2.1Z | 2.2Z | (2.2)S | 2.2F | (2.2)SF | 2.0F | 2.0F | 1.9 | 1.9F | 1.9F |
| 19 | 1.9F | (2.0)SF | 2.0F | (2.0)JF | (2.1)JF | 2.0F | 2.1F | 2.4F | 2.4FZ | 2.3 | 2.3 | 2.1F | 2.2F | 2.1 | 2.1 | (2.1)S | (2.2)S | (2.2)S | (2.1)S | (2.0)F | (2.2)SF | (2.0)SF | (2.1)SF | (2.1)F |
| 20 | 2.0F | (2.0)SF | 1.9F | (1.9)SF | (2.2)SF | (2.1)SF | 2.2F | 2.5F | 2.4F | 2.5 | 2.3Z | (2.1)SF | (2.2)S | 2.2 | (2.2)SH | (2.2)S | (2.3)S | (2.3)S | (2.2)F | (2.1)S | (2.1)SF | (1.9)JS | (1.9)JF | (2.0)SF |
| 21 | (1.8)SF | (2.0)JF | (2.0)B | B | (1.9)JB | (2.0)SF | (2.1)SF | (2.3)F | (2.2)S | (2.1)S | (2.2)S | (2.2)S | (2.2)S | (2.1)S | (2.2)S | (2.2)S | (2.3)S | (2.3)S | (2.2)F | (2.2)F | (2.1)S | (2.1)J | (2.0)S | (2.0)S |
| 22 | (2.1)P | (2.0)J | B | B | B | (2.1)SF | (2.1)SF | (2.5)S | (2.4)S | (2.4)S | (2.2)S | (2.2)S | (2.1)S | (2.0)S | (2.1)S | (2.2)S | (2.2)S | (2.2)S | (2.1)SZ | (2.1)SP | (2.0)S | (2.0)SP | (1.9)S | (2.0)S |
| 23 | (2.0)S | (2.1)S | 2.2F | 2.1F | 2.1 | 2.0F | 2.0F | (2.3)S | 2.4 | 2.3 | (2.4)S | 2.3 | 2.1 | (2.3)S | (2.2)S | (2.2)S | 2.3 | (2.3)S | 2.3 | 2.1 | (2.0)S | (2.0)S | (2.0)JA | (2.0)F |
| 24 | 2.0 | (2.0)P | (2.1)P | M | M | M | 2.0 | (2.5)H | (2.5)R | M | M | 2.3 | 2.3 | 2.2 | (2.2)S | (2.2)S | 2.3 | (2.4)S | 2.3F | 2.3 | (2.2)SF | 2.0 | 2.0 | 2.0 |
| 25 | (2.1)S | 2.1 | 2.1 | 2.2 | 2.3 | 2.3F | 2.1 | (2.4)S | 2.6 | 2.4 | 2.4 | 2.3 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.1 | (2.1)J | 2.0 | (2.0)J | 2.0 |
| 26 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 1.9 | (2.0)S | 2.4 | 2.3 | 2.4 | (2.1)R | 2.2 | (2.2)S | 2.2 | 2.2 | (2.3)S | 2.3 | (2.3)S | 2.2 | 2.3 | 2.1 | 2.0 | 2.1 | 2.0 |
| 27 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 2.1 | 2.0VF | (2.4)JS | 2.4 | 2.2V | 2.2F | 2.2 | 2.2 | 2.3 | 2.1 | 2.3 | 2.2 | (2.2)S | (2.1)S | (2.2)S | 2.1 | 2.0 | 1.9 | 1.8 |
| 28 | 1.9K | 2.0K | 1.8K | 2.0K | 1.9FK | (1.7)FK | 1.8FK | S(2.0)FK | S(1.6)FK | (1.5)BK | 1.4K | (1.5)FK | 1.7FK | GK | 1.5K | 1.6K | 1.8FK | S(2.0)FK | S(2.0)FK | FK | FK | 1.8FK | F(1.8)K | (1.9)FK |
| 29 | (2.0)FK | (2.2)FK | BFK | (2.3)FK | K(2.2)FB | (1.9)FK | 1.9FK | 2.4FK | 2.3HK | 2.3FK | 2.3FK | 2.1FK | 2.1K | (2.2)SK | 2.3K | (2.3)SK | 2.2K | MK | MK | S(2.1)FK | S(1.7)FK | (1.8)FK | (2.0)FK | FK |
| 30 | (2.0)FK | (2.2)FK | (1.8)FK | FBK | (2.2)FK | S(2.1)FK | (2.0)FK | (2.4)FK | (2.4)FK | 2.4K | 2.2K | 2.2K | 2.1K | 2.2K | 2.0K | 2.1K | S(2.2)FS | S(2.2)PK | 2.2FK | F(1.8)VK | S(2.0)FK | 1.8FK | S(1.7)FK | J(1.6)FK |
| 31 | J(1.8)SK | SFK | SFK | S(2.3)FK | 2.1FK | S(1.9)FK | S(1.8)FK | 2.2K | S(2.2)FK | V1.8FK | 2.3FK | 2.2FK | 2.1FK | 2.2K | 2.3K | 2.1HK | J(2.3)SK | (2.2)SK | (2.3)SK | (2.3)SK | (2.1)SK | 2.0K | (1.9)FK | S(1.9)FK |
| Median | 1.9 | (2.0) | 2.0 | 2.0 | 2.0 | 1.9 | 2.0 | 2.3 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2.0 | 2.1 | 2.1 | 2.2 | (2.2) | (2.2) | 2.1 | 2.0 | 1.9 | (1.9) | (1.8) |
| Count | 28 | 28 | 26 | 24 | 25 | 27 | 30 | 30 | 30 | 30 | 30 | 30 | 31 | 31 | 31 | 31 | 31 | 30 | 30 | 30 | 30 | 31 | 30 | 28 |

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

Form adopted June 1946

# TABLE 61

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

## IONOSPHERIC DATA

(M3000)F2, ______ (Unit), October (Month), 1950
(Characteristic)

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | (25)$^S_K$ | (26)$^F_K$ | 31$^F_K$ | 29$^F_K$ | $^K$(2.7)$^S_F$ | (2.7)$^F_K$ | 29$^F_K$ | 3.3$^F_K$ | 3.0$^F_K$ | 2.3$^F_K$ | 2.1$^K$ | 24$^F_K$ |
| 2 | (26)$^S_K$ | 2.7$^F_K$ | 28$^F_K$ | 30$^F_K$ | F$^K$ | S$^F_K$ | 29$^F_K$ | 31$^F_K$ | G$^K$ | 29$^H_K$ | 29$^F_K$ | 29$^K$ |
| 3 | $^K$(27)$^S_F$ | $^K$(26)$^S_F$ | (28)$^F_K$ | $^K$(28)$^S_F$ | B$^F_K$ | B$^K$ | 31$^F$ | (33)$^S$ | 32 | 33 | 31$^H$ | 30 |
| 4 | F | (26)$^S_F$ | (27)$^F_B$ | F | (27)$^B$ | 26$^F$ | 30 | 31$^F$ | 31$^F$ | 33$^F$ | 31 | 30 |
| 5 | (26)$^J$ | B | B | B | B | 27$^F$ | 32$^F$ | 33$^F$ | 33$^F$ | 31$^Z$ | 32 | (31)$^H$ |
| 6 | 28$^F$ | 29$^F$ | (29)$^J_F$ | (28)$^S_F$ | (28)$^F$ | 29$^F$ | 31$^F$ | 33$^F$ | 34$^F$ | 32$^F$ | (31)$^S_F$ | 31 |
| 7 | C | (29)$^S_F$ | (25)$^S_F$ | 27$^F$ | (30)$^S_F$ | (30)$^S_F$ | (28)$^P$ | 32$^F$ | 33$^F$ | 32$^H$ | 31 | 29$^V$ |
| 8 | C | C | C | C | C | C | C | C | C | (31)$^H$ | 32 | C |
| 9 | (28)$^J_F$ | (29)$^J_S$ | (28)$^J_S$ | 30 | 31 | 30$^F$ | 30$^F$ | (34)$^F$ | 34 | (35)$^J_Z$ | 34 | 32$^H$ |
| 10 | (28)$^S_F$ | 27$^F$ | 28$^F$ | 28$^F$ | 29$^F$ | 30$^F$ | 29$^F$ | 33 | 33 | 35 | 33 | 31 |
| 11 | 29$^F$ | (29)$^S_F$ | (29)$^F_S$ | 28$^F$ | 29$^F$ | 29$^F$ | 30 | (34)$^S_F$ | 34 | 33 | 33 | 31 |
| 12 | 2.7 | 26 | 28 | 31 | 3.2 | (28)$^J_S$ | 29 | 34 | 32$^Z$ | 30 | 31 | 31 |
| 13 | 27 | 28 | 29 | 30 | 30 | 30$^F$ | 30 | 33 | 33 | (33)$^S$ | 31 | 30 |
| 14 | 28 | (29)$^S$ | 30 | 30 | 31 | 25 | (27)$^J_S$ | 33 | 32 | 29$^V$ | 30 | 30 |
| 15 | 28$^F$ | 32$^F$ | 35$^F$ | 30$^F$ | 29$^F$ | (27)$^S$ | 27 | 33 | 31$^V$ | 31 | 32 | 31 |
| 16 | 28$^F$ | 29$^F$ | 29$^F$ | 29$^F$ | 27$^F$ | 29$^F$ | (31)$^S_F$ | 33$^F_K$ | 30$^K$ | 29$^F_K$ | $^K$(2.7)$^S_F$ | 27$^F_K$ |
| 17 | (28)$^S$ | (30)$^S_F$ | 30$^F$ | 31$^F$ | (28)$^J_F$ | 27$^F$ | 28$^F$ | 34$^F$ | 30$^F$ | 33 | 3.1$^F_H$ | 3.0 |
| 18 | 28$^F$ | 29$^F$ | (31)$^S_F$ | 30$^F$ | (33)$^J_F$ | 28$^F$ | 30$^F$ | 31$^F$ | 34$^F$ | 31$^F_Z$ | 31$^F$ | 32$^F$ |
| 19 | 2.9$^F$ | (30)$^S_F$ | 29$^F$ | (30)$^J_F$ | (31)$^J_F$ | 30$^F$ | 31$^F$ | 34$^F$ | 34$^F_Z$ | 33 | 33 | 31$^F$ |
| 20 | 30$^F$ | (30)$^S_F$ | 29$^F$ | (29)$^S_F$ | (33)$^S_F$ | (31)$^S_F$ | 32$^F$ | 36$^F$ | 35$^F$ | 35 | 33$^Z$ | (32)$^S_F$ |
| 21 | (28)$^S_F$ | (30)$^J_F$ | (29)$^B$ | B | (29)$^J_B$ | (29)$^S_F$ | (30)$^S_F$ | (34)$^F$ | (32)$^S$ | (32)$^S$ | (32)$^S$ | (33)$^S$ |
| 22 | (31)$^P$ | (30)$^J$ | B | B | B | (31)$^S_F$ | (31)$^S_F$ | (35)$^S$ | (35)$^S$ | (34)$^S$ | (32)$^S$ | (32)$^S$ |
| 23 | (30)$^S$ | (31)$^S$ | 32$^F$ | 31$^F$ | 31$^F$ | 30$^F$ | 30$^F$ | (33)$^S$ | 35 | 33 | (35)$^S$ | 34 |
| 24 | 29 | (30)$^P$ | (31)$^P$ | M | M | M | 29 | (35)$^H$ | (35)$^R$ | M | M | 33 |
| 25 | (30)$^S$ | 31 | 31 | 32 | 33 | 33$^F$ | 30 | (35)$^S$ | 36 | 35 | 34 | 33 |
| 26 | 30 | 30 | 30 | 30 | 31 | 29 | (30)$^S$ | 34 | 33 | 34 | (31)$^R$ | 32 |
| 27 | 30 | 31 | 30 | 3.0 | 30 | 31 | 30$^V_F$ | (35)$^J_S$ | 34 | 32$^V$ | 32$^F$ | 3.2 |
| 28 | 28$^K$ | 29$^K$ | 28$^K$ | 29$^K$ | 29$^F_K$ | (26)$^F_K$ | 27$^F_K$ | $^K$(29)$^S_F$ | $^K$(2.5)$^S_F$ | (2.3)$^B_K$ | 2.1$^K$ | (23)$^F_K$ |
| 29 | (29)$^F_K$ | (31)$^F_K$ | B$^F_K$ | (33)$^F_K$ | $^K$(3.1)$^F_B$ | (28)$^F_K$ | 29$^F_K$ | 34$^F_K$ | 34$^H_K$ | 34$^F_K$ | 3.3$^F_K$ | 31$^F_K$ |
| 30 | (3.0)$^F_K$ | (32)$^F_K$ | (28)$^F_K$ | F$^B_K$ | (31)$^F_K$ | $^K$(30)$^S_F$ | (30)$^F_K$ | (33)$^F_K$ | (34)$^F_K$ | 34$^K$ | 32$^K$ | 32$^K$ |
| 31 | $^K$(2.7)$^J_S$ | S$^F_K$ | S$^F_K$ | $^K$(3.3)$^S_F$ | 31$^F_K$ | $^K$(28)$^S_F$ | $^K$(28)$^S_F$ | 32$^K$ | $^K$(33)$^S_F$ | $^K$27$^V_F$ | 33$^F_K$ | 32$^F_K$ |
| Median | 2.8 | (29) | 2.9 | 30 | 30 | 29 | 30 | 33 | 33 | 32 | 3.2 | 31 |
| Count | 28 | 28 | 26 | 24 | 25 | 27 | 30 | 30 | 30 | 30 | 30 | 30 |

| Day | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.3$^K$ | G$^K$ | 2.3$^K$ | 2.3$^H_K$ | 2.8$^K$ | 28$^K$ | 3.0$^K$ | 2.8$^K$ | (30)$^V_K$ | 2.7$^K$ | $^K$(26)$^S_F$ | (25)$^S_K$ |
| 2 | $^K$28$^F_H$ | 29$^F_K$ | $^K$(26)$^S_F$ | (30)$^S_K$ | 30$^K$ | (30)$^S_K$ | $^K$(32)$^S_F$ | 29$^F_K$ | $^K$(29)$^S_F$ | $^K$(2.8)$^S_F$ | $^K$([illegible])$^S_F$ | (28)$^F_K$ |
| 3 | 3.1 | 30$^F$ | (30)$^S$ | 30 | (30)$^S_F$ | (32)$^S_F$ | (31)$^S_F$ | (33)$^S$ | (32)$^S_F$ | (30)$^S_F$ | 2.7$^F$ | (27)$^Z_F$ |
| 4 | 30 | 2.9 | 29 | 31 | (31)$^S$ | 30 | (3.1)$^S$ | 3.1 | (30)$^S_F$ | 30$^F$ | 28 | (2.7)$^J_B$ |
| 5 | 31 | 31 | 31 | 30 | (32)$^S_H$ | (31)$^S$ | (32)$^S$ | 32 | 30 | 28$^F$ | (2.8)$^S$ | (2.9)$^A$ |
| 6 | 30 | 30 | 30 | (30)$^S$ | 32$^F$ | (33)$^S$ | (33)$^S$ | 29$^F$ | 3.1$^F$ | 29$^F$ | C | C |
| 7 | 30 | 3.0 | 31 | 32 | 30 | 32 | 31 | 30$^F$ | 29 | 27 | 28 | C |
| 8 | 30 | 30 | 30$^H$ | 31 | 31 | 33 | 32 | (32)$^S$ | 32 | 29 | (27)$^J_S$ | (27)$^J_S$ |
| 9 | 30 | 30 | 30 | 31 | (3.2)$^S$ | 31$^F$ | (33)$^S$ | 31$^F$ | 29$^F$ | 28$^F$ | (29)$^F_S$ | (29)$^F_S$ |
| 10 | 31 | 30 | (30)$^S$ | 31 | 32 | 32 | (32)$^J_S$ | 3.2$^F$ | 30$^F$ | 28$^F$ | 28$^F$ | (2.8)$^S_F$ |
| 11 | 32 | 30 | 30 | 31 | (30)$^S$ | 31 | (32)$^S$ | 30$^F$ | 30 | 29$^F$ | (2.8)$^J_F$ | 27 |
| 12 | 31 | 30 | 31 | 3.0 | 31 | (31)$^S$ | 31 | 30 | 30 | (30)$^J_S$ | 2.8 | (2.7)$^J_S$ |
| 13 | 30 | 30 | 30 | (31)$^S$ | (31)$^S$ | (32)$^S_P$ | (31)$^S$ | 31 | (30)$^J_S$ | 27 | (27)$^S$ | 27 |
| 14 | 28 | 28 | 29 | 29 | 29 | (29)$^S$ | 30 | 29 | 26 | 25 | 26 | 27 |
| 15 | 30 | 31 | 30 | 31 | (32)$^S$ | 3.2 | (32)$^S$ | 32$^F$ | 29 | 2.7 | 2.8$^F$ | 27$^F$ |
| 16 | 2.9$^F_K$ | 28$^F_K$ | $^K$(28)$^S_F$ | 29$^F_K$ | 29$^K$ | (29)$^S_K$ | $^K$(30)$^P_S$ | 28 | 27 | 27 | (26)$^S$ | (27)$^S$ |
| 17 | 29 | 30 | (30)$^S$ | 30 | (31)$^S$ | (30)$^S$ | (3.2)$^S$ | 29$^F$ | 27 | (27)$^S$ | 28 | 2.9$^F$ |
| 18 | 31 | 30$^F$ | 31$^Z$ | 3.2$^Z$ | (32)$^S$ | 33$^F$ | (33)$^S_F$ | 3.0$^F$ | 29$^F$ | 28 | 28$^F$ | 28$^F$ |
| 19 | 3.2$^F$ | 3.1 | 31 | (31)$^S$ | (3.2)$^S$ | (33)$^S$ | (31)$^S$ | (3.0)$^F$ | (3.2)$^S_F$ | (30)$^S_F$ | (31)$^S_F$ | (31)$^F$ |
| 20 | (32)$^S$ | 32 | (32)$^S_H$ | (32)$^S$ | (3.3)$^S$ | (33)$^S$ | (32)$^F$ | (31)$^S$ | (30)$^S_F$ | (29)$^J_S$ | (29)$^J_F$ | (30)$^S_F$ |
| 21 | (32)$^S$ | (31)$^S$ | (32)$^S$ | (32)$^S$ | (33)$^S$ | (34)$^S$ | (32)$^F$ | (32)$^F$ | (31)$^S$ | (31)$^J$ | (30)$^S$ | (29)$^S$ |
| 22 | (30)$^S$ | (30)$^S$ | (31)$^S$ | (32)$^S$ | (32)$^S$ | (32)$^S$ | (31)$^S_Z$ | (31)$^S_P$ | (3.0)$^S$ | (30)$^S_P$ | (29)$^S$ | (30)$^S$ |
| 23 | 31 | (33)$^S$ | (32)$^S$ | (32)$^S$ | 34 | (33)$^S$ | 33 | 3.1 | (3.0)$^S$ | (30)$^S$ | (3.0)$^J_A$ | (30)$^P$ |
| 24 | 3.3 | 32 | (32)$^S$ | (33)$^S$ | 33 | (35)$^S$ | 33$^F$ | 33 | (32)$^S_F$ | 30 | 3.0 | 3.0 |
| 25 | 33 | 33 | 33 | 33 | 3.3 | 34 | 34 | 31 | (31)$^J$ | 30 | (29)$^J$ | 30 |
| 26 | (32)$^S$ | 32 | 32 | (33)$^S$ | 34 | (34)$^S$ | 32 | 33 | 3.1 | 30 | 31 | 30 |
| 27 | 3.2 | 33 | 31 | 33 | 3.3 | (33)$^S$ | (31)$^S$ | (32)$^S$ | 32 | 30 | 28 | 27 |
| 28 | 26$^F_K$ | G$^K$ | 23$^K$ | 25$^K$ | 27$^F_K$ | $^K$(30)$^S_F$ | $^K$(3.0)$^S_F$ | F$^K$ | F$^K$ | 27$^F_K$ | (2.7)$^F_K$ | (28)$^F_K$ |
| 29 | 31$^K$ | (32)$^S_K$ | 34$^K$ | (34)$^S_K$ | 32$^K$ | M$^K$ | M$^K$ | $^K$(31)$^S_F$ | $^K$(27)$^S_F$ | (2.8)$^F_K$ | (30)$^F_K$ | F$^K$ |
| 30 | 31$^K$ | 3.2$^K$ | 30$^K$ | 31$^K$ | $^K$(3.2)$^S_P$ | $^K$(32)$^S_P$ | 3.3$^F_K$ | $^K$(27)$^F_V$ | $^K$(2.9)$^S_F$ | 27$^F_K$ | $^K$(26)$^S_F$ | $^K$(24)$^J_F$ |
| 31 | 31$^F_K$ | 32$^K$ | 3.4$^K$ | 31$^H_K$ | $^K$(3.3)$^J_S$ | (32)$^S_K$ | (33)$^S_K$ | (34)$^S_K$ | (31)$^S_K$ | 29$^K$ | (29)$^F_K$ | $^K$(2.8)$^S_F$ |
| Median | 3.1 | 30 | 30 | 31 | 3.2 | (32) | (3.2) | 31 | 3.0 | 29 | (28) | (2.8) |
| Count | 31 | 31 | 31 | 31 | 31 | 30 | 30 | 30 | 30 | 31 | 30 | 28 |

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

# TABLE 62

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

## IONOSPHERIC DATA

Form adopted June 1946

(M3000)F1 (Characteristic), ____ (Unit), October (Month), 1950

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | Q K | 3.1 K | (3.6) S K | (3.8) S K | 3.5 K | 3.6 K | 3.5 K | 3.3 K | 3.2 K | L K | | | | | | |
| 2 | | | | | | | | | (3.4) S K | 3.6 K | 3.7 K | 3.5 K | 3.3 K | 3.4 K | 3.2 K | (3.3) P K | L K | L K | | | | | | |
| 3 | | | | | | | | | L | (3.7) P | 4.0 | L | (3.5) P | 3.7 | 3.9 H | 3.4 | L | | | | | | | |
| 4 | | | | | | | | | L | L | 3.5 | 3.6 | 3.5 | 3.6 | 3.3 | L | L | | | | | | | |
| 5 | | | | | | | | | L | 3.6 | L | L | (3.5) P | 3.8 | L | L | Q | | | | | | | |
| 6 | | | | | | | | | L | L | 3.4 | 3.5 | 3.5 | 3.3 H | L | L | L | | | | | | | |
| 7 | | | | | | | | | L | L | 3.4 | 3.5 | 3.4 | 3.5 | 3.5 H | L | L | | | | | | | |
| 8 | | | | | | | | | L | L | L | C | L | L | Q | Q | Q | | | | | | | |
| 9 | | | | | | | | | L | (3.7) P | 3.9 | 3.8 H | L | L | L | L | L | | | | | | | |
| 10 | | | | | | | | | L | L | L | 3.8 | 3.6 | L | L | L | Q | | | | | | | |
| 11 | | | | | | | | | L | L | L | L | L | L | L | L | Q | | | | | | | |
| 12 | | | | | | | | | Q | L | (3.9) H | L | L | L | L | L | L | | | | | | | |
| 13 | | | | | | | | | Q | L | L | 3.5 | L | L | L | L | L | | | | | | | |
| 14 | | | | | | | | | L | L | L | L | (3.4) P | (3.3) P | (3.4) P | (3.5) P | L | | | | | | | |
| 15 | | | | | | | | | Q | L | (3.8) P | L | L | L | L | L | Q | | | | | | | |
| 16 | | | | | | | | | L K | L K | 3.1 K | 3.3 K | 3.3 K | 3.3 K | 3.3 K | 3.4 K | L K | | | | | | | |
| 17 | | | | | | | | | Q | Q | Q | 3.4 | (3.5) P | L | L | L | Q | | | | | | | |
| 18 | | | | | | | | | Q | L | L | L | 3.7 | L | L | L | Q | | | | | | | |
| 19 | | | | | | | | | L | L | L | 3.7 | (3.7) P | L | L | L | Q | | | | | | | |
| 20 | | | | | | | | | L | L | L | L | L | L | Q | Q | Q | | | | | | | |
| 21 | | | | | | | | | Q | L | L | L | L | L | L | L | Q | | | | | | | |
| 22 | | | | | | | | | L | B | L | L | L | L | L | Q | Q | | | | | | | |
| 23 | | | | | | | | | Q | L | (3.9) P | 3.8 | L | L | L | L | Q | | | | | | | |
| 24 | | | | | | | | | L | M | M | L | L | L | L | L | Q | | | | | | | |
| 25 | | | | | | | | | Q | L | L | L | L | L | L | L | Q | | | | | | | |
| 26 | | | | | | | | | Q | L | L | L | L | L | L | L | Q | | | | | | | |
| 27 | | | | | | | | | Q | L | L | L | L | (3.7) P | L | L | Q | | | | | | | |
| 28 | | | | | | | | | (3.2) J K | 3.5 K | 3.7 K | 3.5 K | (3.4) S K | 3.5 K | 3.4 K | 3.2 K | 3.1 K | | | | | | | |
| 29 | | | | | | | | | Q K | L K | L K | B K | L K | 3.7 K | L K | L K | Q K | | | | | | | |
| 30 | | | | | | | | | L K | L K | L K | L K | L K | 4.0 K | L K | L K | Q K | | | | | | | |
| 31 | | | | | | | | | L K | L K | L K | 3.6 K | L K | L K | L K | Q K | Q K | | | | | | | |
| Median | | | | | | | | | — | 3.6 | 3.7 | 3.6 | 3.5 | 3.6 | 3.4 | 3.4 | — | — | | | | | | |
| Count | | | | | | | | | 2 | 6 | 12 | 14 | 14 | 13 | 8 | 6 | 2 | | | | | | | |

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

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Form adopted June 1946

# TABLE 63

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

## IONOSPHERIC DATA

(M1500)E , ______ , October , 1950
(Characteristic) (Unit) (Month)

Observed at Washington, D. C.

Lat 38.7°N , Long 77.1°W

75°W Mean Time

National Bureau of Standards
(Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | $4.2^{K}$ | $42^{K}$ | $41^{K}$ | $41^{K}$ | $4.3^{K}$ | $4.3^{K}$ | $(42)^{A}_{K}$ | $44^{K}$ | $41^{K}$ | $4.2^{K}$ | $4.2^{K}$ | $40^{K}$ | | | | | | |
| 2 | | | | | | | | $4.3^{K}$ | $41^{K}$ | $41^{K}$ | $43^{K}$ | $42^{K}$ | $4.3^{K}$ | $42^{K}$ | $44^{K}$ | $(42)^{E}_{K}$ | $4.1^{K}$ | $(39)^{F}_{K}$ | $(41)^{S}_{K}$ | | | | | |
| 3 | | | | | | | | 41 | 42 | 44 | 44 | 45 | A | 45 | 41 | 40 | B | A | | | | | | |
| 4 | | | | | | | | 4.3 | 40 | 43 | 44 | C | F | $(43)^{F}$ | 42 | 42 | 41 | 41 | | | | | | |
| 5 | | | | | | | | B | 42 | 45 | $(43)^{A}$ | A | $(44)^{B}$ | 4.3 | 43 | 41 | 40 | 4.1 | | | | | | |
| 6 | | | | | | | | 41 | 40 | $40^{F}$ | 45 | $(44)^{F}$ | 41 | A | $(41)^{A}$ | $(42)^{S}$ | 40 | 36 | | | | | | |
| 7 | | | | | | | | 41 | 43 | 43 | $(44)^{B}$ | B | B | $(42)^{B}$ | $(41)^{B}$ | $40^{F}$ | B | | | | | | | |
| 8 | | | | | | | | B | C | $(41)^{B}$ | $(42)^{F}$ | C | 44 | 41 | 42 | 42 | 41 | 42 | | | | | | |
| 9 | | | | | | | | 39 | $(41)^{A}$ | $(43)^{A}$ | 4.3 | $(43)^{B}$ | $(42)^{B}$ | 42 | 42 | 43 | 45 | 44 | | | | | | |
| 10 | | | | | | | | 40 | 40 | 4.1 | $(42)^{P}$ | B | 41 | 41 | 40 | 40 | 42 | A | | | | | | |
| 11 | | | | | | | | 40 | 43 | $43^{H}$ | $42^{H}$ | 42 | 42 | 42 | 4.1 | 42 | 41 | $(42)^{B}$ | | | | | | |
| 12 | | | | | | | | 4.3 | 42 | $4.3^{F}$ | $(4.3)^{B}$ | $(43)^{B}$ | B | A | 4.1 | 41 | 42 | 41 | | | | | | |
| 13 | | | | | | | | 38 | $(40)^{B}$ | 40 | 41 | 4.1 | 40 | 41 | 41 | 41 | 41 | 42 | | | | | | |
| 14 | | | | | | | | 40 | $4.2^{F}$ | 42 | A | A | A | $(4.2)^{A}$ | $(42)^{A}$ | 4.1 | 42 | A | | | | | | |
| 15 | | | | | | | | 40 | A | A | $(42)^{A}$ | 43 | 4.2 | 42 | 40 | 4.1 | $(40)^{F}$ | A | | | | | | |
| 16 | | | | | | | | $40^{K}$ | $40^{K}$ | $41^{K}$ | $41^{K}$ | $42^{K}$ | $43^{K}$ | $43^{K}$ | $4.1^{K}$ | $41^{K}$ | $41^{K}$ | $39^{K}$ | | | | | | |
| 17 | | | | | | | | 44 | 42 | 42 | 45 | 43 | $(41)^{B}$ | $(40)^{B}$ | 40 | 41 | $(41)^{B}$ | B | | | | | | |
| 18 | | | | | | | | 39 | $(43)^{B}$ | $(44)^{B}$ | A | 43 | 41 | 40 | 41 | 40 | 4.1 | A | | | | | | |
| 19 | | | | | | | | B | 40 | 43 | A | A | A | A | $(42)^{B}$ | A | 42 | A | | | | | | |
| 20 | | | | | | | | A | $4.1^{H}$ | A | A | $(4.3)^{A}$ | 44 | 42 | 4.3 | 43 | A | 38 | | | | | | |
| 21 | | | | | | | | M | M | M | M | M | M | M | M | $(44)^{B}$ | A | B | | | | | | |
| 22 | | | | | | | | M | M | M | M | M | M | M | M | M | $(43)^{B}$ | A | | | | | | |
| 23 | | | | | | | | 41 | B | 4.3 | 44 | 4.4 | 42 | 44 | 4.3 | 4.2 | 44 | $(4.2)^{S}$ | | | | | | |
| 24 | | | | | | | | B | $(45)^{B}$ | M | M | 44 | 44 | 42 | 43 | 4.3 | 45 | | | | | | | |
| 25 | | | | | | | | 44 | A | A | A | $44^{F}$ | 43 | 43 | $44^{F}$ | 43 | 4.2 | | | | | | | |
| 26 | | | | | | | | A | $(44)^{A}$ | A | A | 41 | 41 | $(43)^{A}$ | 4.2 | $(4.2)^{A}$ | $(4.2)^{A}$ | A | | | | | | |
| 27 | | | | | | | | A | A | A | $(44)^{A}$ | A | 4.1 | 42 | 41 | 42 | 4.3 | S | | | | | | |
| 28 | | | | | | | | $42^{K}$ | $40^{K}$ | $41^{K}$ | $42^{K}$ | $(40)^{B}_{K}$ | $40^{K}$ | $41^{K}$ | $40^{K}$ | $40^{K}$ | $41^{K}$ | $(3.5)^{S}_{K}$ | | | | | | |
| 29 | | | | | | | | $B^{K}$ | $4.3^{K}$ | $(44)^{B}_{K}$ | $4.3^{K}$ | $B^{K}$ | $(41)^{B}_{K}$ | $(44)^{B}_{K}$ | $(42)^{B}_{K}$ | $43^{K}$ | $42^{K}$ | $M^{K}$ | | | | | | |
| 30 | | | | | | | | $S^{K}$ | $(40)^{B}_{K}$ | $(43)^{B}_{K}$ | $(43)^{B}_{K}$ | $(42)^{B}_{K}$ | $B^{K}$ | $43^{K}$ | $42^{K}$ | $44^{K}$ | $(43)^{B}_{K}$ | | | | | | | |
| 31 | | | | | | | | $(40)^{S}_{K}$ | $42^{K}$ | $B^{K}$ | $(45)^{B}_{K}$ | $4.1^{K}$ | $40^{K}$ | $42^{K}$ | $43^{K}$ | $(44)^{S}_{K}$ | $(45)^{B}_{K}$ | | | | | | | |
| Median | | | | | | | — | 41 | 42 | 43 | 43 | 43 | 42 | 42 | 4.2 | 42 | 42 | 41 | — | | | | | |
| Count | | | | | | | 1 | 20 | 24 | 22 | 22 | 20 | 22 | 26 | 29 | 29 | 27 | 14 | 1 | | | | | |

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

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Table 64

Ionospheric Storminess at Washington, D. C.

October 1950

| Day | Ionospheric character* 00-12 GCT | Ionospheric character* 12-24 GCT | Principal storms Beginning GCT | Principal storms End GCT | Geomagnetic character** 00-12 GCT | Geomagnetic character** 12-24 GCT |
|---|---|---|---|---|---|---|
| 1 | 4 | 7 | ### | ---- | 5 | 4 |
| 2 | 5 | 4 | ---- | ---- | 5 | 5 |
| 3 | 5 | 3 | ---- | 1100 | 5 | 4 |
| 4 | 3 | 2 | | | 5 | 4 |
| 5 | *** | 2 | | | 5 | 4 |
| 6 | 3 | 3 | | | 4 | 3 |
| 7 | 3 | 2 | | | 4 | 3 |
| 8 | 1 | 2 | | | 3 | 2 |
| 9 | 1 | 2 | | | 3 | 2 |
| 10 | 1 | 1 | | | 2 | 1 |
| 11 | 1 | 0 | | | 1 | 2 |
| 12 | 2 | 1 | | | 3 | 2 |
| 13 | 1 | 3 | | | 3 | 2 |
| 14 | 1 | 2 | | | 4 | 4 |
| 15 | 1 | 0 | | | 4 | 2 |
| 16 | 2 | 5 | 1200 | 2400 | 4 | 4 |
| 17 | 1 | 2 | | | 3 | 3 |
| 18 | 1 | 0 | | | 4 | 2 |
| 19 | 2 | 1 | | | 2 | 1 |
| 20 | 1 | 2 | | | 2 | 2 |
| 21 | 2 | 1 | | | 1 | 2 |
| 22 | 2 | 1 | | | 1 | 2 |
| 23 | 3 | 1 | | | 3 | 3 |
| 24 | 0 | 1 | | | 3 | 2 |
| 25 | 1 | 2 | | | 1 | 1 |
| 26 | 1 | 2 | | | 2 | 1 |
| 27 | 1 | 2 | | | 1 | 1 |
| 28 | 4 | 7 | 0500 | ---- | 5 | 6 |
| 29 | 4 | 4 | ---- | ---- | 6 | 5 |
| 30 | 4 | 4 | ---- | ---- | 5 | 4 |
| 31 | 6 | 4 | ---- | ---- | 5 | 4 |

*Ionosphere character figure (I-figure) for ionospheric storminess at Washington, D. C., during 12-hour period, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

**Average for 12 hours of Cheltenham, Maryland, geomagnetic K-figures on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

***No readable record. Refer to table 53 for detailed explanation.

----Dashes indicate continuing storm.

###Storm began at 2000 GCT on September 30, 1950.

Table 65

Provisional Radio Propagation Quality Figures
(Including Comparisons with CRPL Warnings and Forecasts)
September 1950

| Day | North Atlantic quality figure, Half day GCT (1) | (2) | CRPL* Warning, Half day GCT (1) | (2) | CRPL Forecasts (J-reports) | North Pacific quality figure, Half day GCT (1) | (2) | Geo-mag-netic $K_{Ch}$, Half day GCT (1) | (2) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5 | 7 | | | | 7 | 7 | 2 | 1 |
| 2 | 6 | 6 | | | | 5 | 6 | 1 | 1 |
| 3 | (4) | (4) | | U | | 5 | (4) | 3 | (5) |
| 4 | (2) | (2) | W | W | X | (4) | (3) | (5) | (4) |
| 5 | (2) | (3) | W | W | X | (3) | (3) | (5) | (4) |
| 6 | (2) | (3) | W | W | X | (3) | (2) | (5) | (4) |
| 7 | (2) | (4) | W | | X | (3) | (4) | (4) | 3 |
| 8 | (2) | (4) | | | | (4) | (3) | (5) | (4) |
| 9 | (3) | (4) | W | U | | (3) | (4) | (4) | 2 |
| 10 | (3) | (4) | W | | | 5 | 5 | 3 | 3 |
| 11 | (2) | (4) | W | (U) | | (3) | 5 | (5) | 2 |
| 12 | (4) | 5 | | | | 5 | 6 | 3 | 2 |
| 13 | 6 | 5 | | | | 6 | 5 | 2 | 2 |
| 14 | 5 | 6 | U | | | 6 | 5 | 1 | 1 |
| 15 | 6 | 6 | | | X | 6 | 5 | 1 | 1 |
| 16 | 6 | 6 | | | X | 6 | (4) | 2 | (4) |
| 17 | 5 | 5 | | | | 7 | (4) | 3 | (4) |
| 18 | (3) | (4) | W | U | | (4) | (4) | (5) | 3 |
| 19 | (4) | (4) | W | | | (4) | (4) | 3 | 3 |
| 20 | (3) | 5 | U | U | | (3) | (4) | (5) | 3 |
| 21 | (3) | 6 | | | | 6 | 5 | 3 | 1 |
| 22 | 5 | 6 | | | | 6 | 6 | 1 | 1 |
| 23 | 5 | 5 | | | | 6 | (4) | 3 | (4) |
| 24 | 5 | 5 | W | U | | 6 | (4) | 3 | (4) |
| 25 | (3) | (4) | U | U | | 5 | (4) | (4) | (4) |
| 26 | (4) | 5 | U | (U) | | 6 | 5 | 3 | 3 |
| 27 | (4) | 5 | | | | 5 | (4) | 3 | 2 |
| 28 | 5 | 5 | | | | 5 | 6 | 2 | 2 |
| 29 | 5 | 6 | | | | 5 | 6 | 1 | 1 |
| 30 | 7 | 5 | | | X | 5 | 6 | 2 | 2 |

| Score: | Warning N.A. | Warning N.P. | Forecast N.A. | Forecast N.P. |
|---|---|---|---|---|
| H | 22 | 20 | 8 | 9 |
| (M) | 2 | 1 | 0 | 0 |
| M | 9 | 8 | 21 | 17 |
| G | 26 | 27 | 25 | 29 |
| O | 1 | 4 | 6 | 5 |

Scales:

Quality Figures
- (1)- Useless
- (2)- Very poor
- (3)- Poor
- (4)- Poor to fair
- 5 - Fair
- 6 - Fair to good
- 7 - Good
- 8 - Very good
- 9 - Excellent

Geomagnetic $K_{Ch}$ - 0 to 9, 9 representing the greatest disturbance; $K_{Ch} \geq 4$ indicates significant disturbance, enclosed in ( ) for emphasis.

Symbols:
- W Disturbed conditions expected
- U Unstable conditions expected
- N No disturbance expected
- X Probable disturbed date

Scoring:
- H Storm ($Q \leq 4$) hit
- (M) Storm severer than predicted
- M Storm missed
- G Good day forecast
- O Overwarning

Scoring by half day according to following table:

| | Quality Figure $\leq 3$ | 4 | 5 | $\geq 6$ |
|---|---|---|---|---|
| W | H | H | O | O |
| U | (M) | H | H | O |
| N | M | M | G | G |
| X | H | H | O | O |

*Broadcast on WWV, Washington, D. C. Times of warnings recorded to nearest half day as broadcast. ( ) broadcast for one-quarter day. Blanks signify N.

**In addition to dates marked X, the following was designated as a probable disturbed day on forecasts more than eight days in advance of said date: September 3.

## Table 66

## American and Zürich Provisional Relative Sunspot Numbers

## October 1950

| Date | $R_A$* | $R_Z$** | Date | $R_A$* | $R_Z$** |
|---|---|---|---|---|---|
| 1 | 54 | 41 | 17 | 115 | 99 |
| 2 | 56 | 41 | 18 | 93 | 74 |
| 3 | 64 | 41 | 19 | 56 | 50 |
| 4 | 73 | 50 | 20 | 42 | 48 |
| 5 | 73 | 50 | 21 | 27 | 27 |
| 6 | 56 | 45 | 22 | 21 | 20 |
| 7 | 76 | 54 | 23 | 34 | 22 |
| 8 | 109 | 78 | 24 | 43 | 32 |
| 9 | 122 | 84 | 25 | 40 | 30 |
| 10 | 99 | 79 | 26 | 61 | 37 |
| 11 | 108 | 68 | 27 | 55 | 51 |
| 12 | 94 | 88 | 28 | 77 | 55 |
| 13 | 94 | 75 | 29 | 132 | 95 |
| 14 | 81 | 72 | 30 | 124 | 107 |
| 15 | 104 | 106 | 31 | 93 | 74 |
| 16 | 115 | 103 | Mean: | 77.1 | 61.2 |

*Combination of reports from 50 observers; see page 8.

**Dependent on observations at Zürich Observatory and its stations at Locarno and Arosa.

Table 67a

Coronal observations at Climax, Colorado (5303A), east limb

| Date | Degrees north of the solar equator | | | | | | | | | | | | | | | | | | 0° | Degrees south of the solar equator | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GCT | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| 1950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. 2.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 8 | 10 | 12 | 10 | 10 | 10 | 12 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3.7 | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 8 | 8 | 10 | 12 | 15 | 12 | 13 | 10 | 8 | 5 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - |
| 4.7 | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 8 | 12 | 13 | 18 | 22 | 25 | 15 | 12 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 5.6a | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 5 | 8 | 8 | 8 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7.8 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 8.7 | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 3 | 5 | 8 | 8 | 15 | 12 | 10 | 12 | 13 | 13 | 10 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - |
| 9.6a | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 5 | 8 | 10 | 11 | 11 | 12 | 8 | 10 | 12 | 15 | 10 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - |
| 10.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 11.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12.8 | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 5 | 5 | 10 | 5 | 5 | 8 | 10 | 12 | 3 | 1 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - |
| 13.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 5 | 8 | 3 | 3 | 3 | 5 | 5 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 14.6 | - | - | - | - | - | - | - | - | - | - | - | 5 | 8 | 12 | 15 | 20 | 5 | 3 | 3 | 4 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 15.7 | - | - | - | - | - | - | - | - | - | - | - | 3 | 5 | 8 | 12 | 14 | 8 | 3 | 1 | 1 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 16.6 | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 8 | 9 | 10 | 5 | 3 | 3 | 3 | 5 | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 17.7 | - | - | - | 2 | 3 | 3 | 5 | 3 | 3 | 2 | 2 | 5 | 8 | 10 | 10 | 14 | 12 | 5 | 3 | 5 | 5 | 8 | 5 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - |
| 18.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 5 | 3 | 3 | 3 | 5 | 5 | 3 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| 19.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | - | 3 | 5 | 5 | 8 | 5 | 3 | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - |
| 20.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 21.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22.7 | - | - | - | - | - | - | - | - | - | - | 3 | 5 | 5 | 5 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 23.7 | X | X | X | X | X | X | X | X | X | X | X | X | X | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | X | X | X | X | X | X |
| 24.6 | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 3 | 3 | 5 | 8 | 6 | 5 | 8 | 13 | 13 | 5 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 26.8 | X | X | X | - | - | - | - | - | - | - | - | - | - | 3 | 10 | 10 | 8 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | X | X | X |
| 27.7 | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 5 | 8 | 10 | 12 | 10 | 12 | 10 | 5 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 29.8 | - | - | - | - | - | - | - | - | 3 | 3 | - | - | 3 | 3 | 8 | 10 | 12 | 17 | 14 | 12 | 10 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 30.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 3 | 3 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | X | X | X |
| 31.6 | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 5 | 3 | 5 | 5 | 5 | 3 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |

Note: Observation low weight: Oct. 16.6 at N45 - N90 and S10 - S45.

Table 68a

Coronal observations at Climax, Colorado (6374A), east limb

| Date | Degrees north of the solar equator | | | | | | | | | | | | | | | | | | 0° | Degrees south of the solar equator | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GCT | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| 1950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. 2.6 | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - | - | - |
| 3.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | 3 | 3 | 3 | 5 | 3 | - | - | - | - | - | - |
| 4.7 | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | - | - | - | - | 5 | 3 | 18 | 8 | 3 | 3 | 5 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 5.6a | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | - | 10 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7.8 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 8.7 | - | - | - | - | - | - | - | - | 1 | 1 | 1 | 1 | - | - | - | 10 | 10 | 8 | 10 | 8 | 12 | 12 | 10 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 9.6a | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | 3 | 5 | 5 | - | 12 | 10 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - |
| 11.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | - | 3 | 8 | 13 | 3 | - | - | - | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 13.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | - | 8 | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 14.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 12 | 3 | 3 | 12 | 15 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - |
| 15.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 12 | 2 | 2 | 2 | 3 | 1 | 1 | - | 2 | 2 | 2 | 1 | 1 | 1 | - | - | - | - | - | - | - |
| 16.6 | - | - | - | - | - | - | - | 1 | 1 | 1 | - | - | - | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - |
| 17.7 | 1 | 1 | 3 | 3 | - | - | - | 1 | 1 | 1 | - | - | 2 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 18.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 19.7 | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | - | 2 | - | 3 | 2 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 2 | 2 | - | - | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - |
| 20.6 | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 4 | 3 | - | 3 | 1 | 3 | 1 | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 |
| 21.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 3 | 3 | 3 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 4 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| 23.7 | X | X | X | X | X | X | X | X | X | X | X | X | X | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 1 | 1 | - | - | - | - | - | X | X | X | X | X | X |
| 24.6 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | 1 | 3 | - | 1 | 10 | 5 | 10 | 9 | 10 | 8 | 3 | 5 | 2 | 3 | 5 | 3 | 3 | 3 | 5 | 5 | 3 | 3 | 3 | 3 | 3 |
| 26.8* | X | X | X | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 3 | 3 | 5 | 3 | 5 | 5 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | X | X | X |
| 27.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 12 | 12 | 8 | 5 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | X | X | X |
| 29.8 | - | - | - | - | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | - | - | 2 | 10 | 5 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 |
| 30.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | X | X | X |
| 31.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | - | - | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - |

*On 26 October a slight suggestion of Doppler shift in the 6374A line at N05.
Note: Observation low weight: Oct. 16.6 at N45 - N90 and S10 - S45; Oct. 24.6 at N10 - S10.

Table 67b

Coronal observations at Climax, Colorado (5303A), west limb

| Date | Degrees south of the solar equator | | | | | | | | | | | | | | | | | | 0° | Degrees north of the solar equator | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GCT | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| 1950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. 2.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 5 | 5 | 8 | 8 | 8 | 10 | 12 | 13 | 13 | 15 | 8 | 3 | - | - | - | - | - | - | - | - | - | - |
| 3.7 | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 5 | 8 | 12 | 10 | 8 | 8 | 8 | 12 | 14 | 20 | 15 | 13 | 12 | 8 | 5 | 5 | 5 | - | - | - | - | - | - | - |
| 4.7 | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 8 | 15 | 10 | 8 | 5 | 8 | 14 | 20 | 10 | 12 | 10 | 5 | 5 | 5 | 3 | - | - | - | - | - | - | - |
| 5.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 5 | 5 | 5 | 3 | 3 | 8 | 8 | 8 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - |
| 7.8 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 8.7 | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 5 | - | - | 3 | - | - | - | - | - | - | - | - | - | - |
| 9.6a | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 10 | 5 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 5 | 3 | 3 | 3 | 5 | 5 | 3 | - | - | 3 | 3 | - | - | - | - | - | - | - | - | - |
| 11.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 8 | 10 | 5 | 3 | 3 | 3 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12.8 | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 8 | 8 | 8 | 5 | 3 | 5 | 10 | 13 | 8 | 5 | 3 | 3 | 5 | 5 | 3 | - | - | - | - | - | - | - |
| 13.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 8 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | - |
| 14.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 10 | 12 | 8 | 6 | 8 | 12 | 10 | 8 | 6 | 5 | 3 | 3 | 3 | 3 | 5 | 3 | - | - | - | - | - |
| 15.7a | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 8 | 10 | 12 | 10 | 10 | 10 | 8 | 5 | 5 | 3 | X | X | X | X | X | - | - | - | - | - | - |
| 16.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 8 | 12 | 12 | 13 | 10 | 6 | 5 | 4 | 2 | 1 | 1 | - | - | - | - | - | - | - | - | - |
| 17.7 | - | - | - | - | - | - | - | - | 1 | 1 | 3 | 3 | 3 | 5 | 5 | 5 | 8 | 12 | 15 | 17 | 15 | 14 | 12 | 12 | 10 | 3 | 1 | - | - | - | - | - | - | - | - | - | - |
| 18.9 | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 8 | 8 | 8 | 5 | 5 | 5 | 5 | 3 | - | - | - | - | - | - | - | - | - | - |
| 19.7 | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 10 | 12 | 13 | 15 | 13 | 12 | 10 | 12 | 12 | 15 | 12 | 12 | 10 | 10 | 8 | 3 | - | - | - | - | - | - | - | - | - | - |
| 20.6 | - | - | - | - | - | - | - | - | - | 3 | 5 | 8 | 10 | 12 | 15 | 15 | 20 | 13 | 12 | 10 | 12 | 14 | 12 | 10 | 8 | 10 | 6 | 3 | 3 | - | - | - | - | - | - | - | - |
| 21.7 | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 8 | 10 | 12 | 12 | 10 | 10 | 12 | 10 | 10 | 8 | 5 | 5 | - | - | - | - | - | - | - | - | - | - | - | - |
| 22.7 | - | - | - | - | - | - | - | - | - | - | - | 3 | 5 | 8 | 12 | 12 | 12 | 12 | 10 | 10 | 12 | 12 | 10 | 8 | 5 | 3 | 3 | - | - | - | - | - | - | - | - | - | - |
| 23.7 | X | X | X | X | - | - | - | - | - | - | - | 3 | 3 | 5 | 8 | 10 | 12 | 12 | 10 | 5 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | X | X | X | X | X |
| 24.6 | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 5 | 8 | 10 | 10 | 8 | 8 | 5 | 8 | 5 | 8 | 10 | 10 | 8 | 5 | 5 | 3 | 3 | 3 | - | - | - | - | - | - | - |
| 26.8 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 27.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 8 | 8 | 12 | 10 | 8 | 5 | 3 | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| 29.8 | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 8 | 8 | 10 | 8 | 8 | 10 | 10 | 12 | 12 | 8 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - |
| 30.9 | X | X | X | X | - | - | - | - | - | - | - | - | - | - | - | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 5 | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| 31.6 | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 5 | 5 | 5 | 8 | 8 | 8 | 10 | 10 | 8 | 5 | 5 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - |

Table 68b

Coronal observations at Climax, Colorado (6374A), west limb

| Date | Degrees south of the solar equator | | | | | | | | | | | | | | | | | | 0° | Degrees north of the solar equator | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GCT | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| 1950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. 2.6 | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | 3 | 10 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - |
| 3.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 3 | - | - | - | - | 15 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4.7 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | - | - | - | - | - | - | - | 3 | 3 | - | 1 | - | 12 | 15 | - | 3 | - | - | - | - | - | - | - | - | - | - | - |
| 5.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7.8 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 8.7 | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 9.6a | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 3 | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 10 | 3 | 5 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 11.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 8 | 3 | 5 | 3 | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12.8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 8 | 5 | 3 | 5 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 13.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | 1 | 3 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 14.6 | - | - | - | - | - | - | 1 | 1 | 1 | 1 | 1 | - | - | - | - | - | - | - | - | 3 | 5 | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 15.7a | - | - | - | - | - | - | - | - | 2 | 2 | - | - | - | - | - | - | - | - | 2 | 3 | 11 | 8 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 16.6 | - | - | - | - | - | - | - | - | 1 | 1 | 3 | 1 | 1 | - | - | - | - | 8 | 10 | 8 | 12 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 17.7 | - | - | - | - | - | - | - | 3 | 3 | 3 | - | - | - | - | 3 | 3 | - | 3 | 10 | 3 | 3 | 3 | - | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - | - | - | 1 |
| 18.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 19.7 | - | - | - | - | - | - | - | 2 | 3 | - | - | - | - | - | 2 | 8 | 10 | 14 | 10 | 3 | 3 | - | - | - | - | - | 1 | 1 | 1 | 1 | - | - | - | - | - | - | - |
| 20.6 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 5 | 5 | 3 | - | - | 3 | 10 | 3 | 8 | 10 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 21.7 | - | | - | - | - | - | - | - | - | - | - | - | - | 2 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22.7 | 2 | 2 | 2 | - | - | 1 | 1 | 1 | - | - | - | 2 | 5 | 3 | 3 | 5 | 3 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 23.7 | X | X | X | X | - | - | - | - | - | - | - | - | 2 | 2 | 3 | 5 | 5 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | X | X | X | X | X |
| 24.6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 5 | 3 | 2 | 2 | - | 2 | 3 | - | - | - | 2 | 2 | 2 | - | - | - | - | 2 | 2 | 2 | 2 |
| 26.8 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 27.7 | X | X | X | X | X | X | X | - | - | - | - | - | 3 | 3 | 5 | - | 8 | 10 | 8 | 5 | - | - | - | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| 29.8 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | - | 2 | 4 | 3 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - |
| 30.9 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| 31.6 | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 8 | 14 | 8 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - |

Table 69a

Coronal observations at Climax, Colorado (6702A), east limb

| Date GCT | Degrees north of the solar equator | | | | | | | | | | | | | | | | | | 0° | Degrees south of the solar equator | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| 1950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. 2.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 5.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7.8 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 8.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 9.6a | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 11.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 13.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 14.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 15.7 | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | 2 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 16.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 17.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 18.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 19.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 20.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 21.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 23.7 | X | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | X | X | X | X | X | X |
| 24.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 26.8 | X | X | X | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | X | X | X |
| 27.7 | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | - | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | X | X | X |
| 29.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 30.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | X | X | X |
| 31.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Note: Observation low weight: Oct. 16.6 at N45 - N90 and S10 - S45.

Table 70a

Coronal observations at Sacramento Peak, New Mexico (5303A), east limb

| Date GCT | Degrees north of the solar equator | | | | | | | | | | | | | | | | | | 0° | Degrees south of the solar equator | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| 1950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. 2.7 | - | - | - | - | - | - | - | - | 3 | 5 | 5 | 5 | 8 | 10 | 14 | 12 | 22 | 17 | 20 | 22 | 28 | 14 | 8 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 5.8 | - | - | - | - | - | - | - | - | - | - | - | 3 | 5 | 8 | 8 | 10 | 12 | 22 | 14 | 14 | 12 | 12 | 10 | 8 | 5 | 5 | 3 | - | - | - | - | - | - | - | - | - | - |
| 6.9 | - | - | - | - | - | - | - | - | - | - | 3 | 5 | 8 | 12 | 14 | 14 | 15 | 28 | 22 | 25 | 25 | 28 | 20 | 20 | 15 | 8 | 8 | 3 | - | - | - | - | - | - | - | - | - |
| 7.7 | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 8 | 10 | 12 | 15 | 28 | 28 | 18 | 20 | 33 | 31 | 33 | 31 | 15 | 5 | 5 | 3 | 3 | 3 | - | - | - | - | - | - | - |
| 8.7 | - | - | - | - | - | - | - | - | - | 3 | 5 | 5 | 8 | 8 | 12 | 14 | 12 | 28 | 12 | 13 | 15 | 25 | 31 | 18 | 15 | 8 | 5 | 5 | 4 | - | - | - | - | - | - | - | - |
| 9.7 | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 6 | 8 | 10 | 14 | 15 | 18 | 15 | 15 | 15 | 17 | 22 | 17 | 13 | 8 | 5 | 3 | 3 | 3 | 1 | - | - | - | - | - | - |
| 10.7 | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 8 | 8 | 10 | 10 | 12 | 10 | 10 | 10 | 12 | 13 | 14 | 12 | 10 | 8 | 3 | - | - | - | - | - | - | - | - | - | - |
| 11.7 | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 8 | 12 | 14 | 10 | 10 | 10 | 10 | 10 | 11 | 9 | 8 | 5 | 5 | 3 | 3 | - | - | - | - | - | - | - | - |
| 12.7 | - | - | - | - | 3 | 5 | 8 | 5 | 3 | 5 | 8 | 8 | 10 | 10 | 10 | 15 | 17 | 8 | 13 | 17 | 22 | 10 | 8 | 10 | 10 | 5 | 3 | - | - | - | - | - | - | - | - | - | - |
| 13.7 | - | - | - | 3 | 3 | 3 | 5 | 5 | 5 | 8 | 5 | 8 | 8 | 12 | 15 | 22 | 14 | 10 | 10 | 17 | 20 | 10 | 5 | 5 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - |
| 14.8 | - | - | - | - | 3 | 8 | 8 | 10 | 8 | 8 | 10 | 10 | 10 | 15 | 31 | 35 | 18 | 10 | 8 | 8 | 8 | 8 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 15.7 | - | - | - | - | - | 3 | 5 | 5 | 5 | - | - | 5 | 8 | 10 | 15 | 22 | 25 | 10 | 8 | 8 | 10 | 8 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 16.8 | - | - | - | - | - | 3 | 5 | 8 | 8 | 5 | - | 3 | 10 | 12 | 15 | 18 | 15 | 12 | 5 | 12 | 10 | 10 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 18.7 | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 8 | 8 | 10 | 8 | 5 | 8 | 8 | 8 | 10 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | - | - | - | - | - | - | - |
| 19.7 | - | - | - | - | 3 | 3 | 3 | 5 | 5 | 3 | 3 | 3 | 3 | 5 | 8 | 8 | 5 | 8 | 8 | 10 | 10 | 10 | 10 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 21.7 | - | - | - | - | - | - | - | 3 | 3 | 3 | 5 | 3 | 3 | 8 | 8 | 10 | 10 | 10 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 8 | 5 | 3 | 2 | 2 | - | - | - |
| 22.7 | - | - | - | - | - | - | 3 | 3 | 5 | 5 | 3 | 5 | 5 | 8 | 8 | 8 | 8 | 8 | 5 | 5 | 5 | 5 | 5 | 3 | 3 | 3 | 3 | 2 | 5 | 3 | 3 | - | - | - | - | - | - |
| 23.7 | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 8 | 8 | 10 | 8 | 8 | 5 | 5 | 5 | 3 | 3 | 2 | 2 | 2 | 3 | 5 | 5 | 5 | 5 | 3 | - | - | - | - | - |
| 24.6 | - | - | - | - | - | - | 3 | 5 | 5 | 8 | 10 | 7 | 3 | 8 | 8 | 10 | 10 | 10 | 13 | 12 | 13 | 10 | 5 | 5 | 3 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - |
| 25.7 | - | - | - | - | - | - | 3 | 3 | 5 | 5 | 8 | 10 | 3 | 5 | 10 | 12 | 12 | 10 | 5 | 12 | 15 | 12 | 5 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - |
| 26.7 | - | - | - | - | - | - | - | 3 | 3 | 5 | 8 | 10 | 8 | 5 | 10 | 12 | 13 | 10 | 8 | 8 | 10 | 10 | 9 | 5 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | - |
| 27.9 | - | - | - | - | - | - | - | - | 3 | 8 | 8 | 10 | 8 | 8 | 10 | 15 | 12 | 15 | 18 | 8 | 8 | 5 | 8 | 5 | 5 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - |
| 28.7 | - | - | - | - | - | - | - | - | 3 | 5 | 5 | 8 | 8 | 12 | 10 | 13 | 15 | 20 | 18 | 10 | 12 | 8 | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 29.7 | - | - | - | - | - | - | - | 3 | 5 | 8 | 8 | 5 | 8 | 10 | 12 | 15 | 20 | 25 | 15 | 15 | 12 | 8 | 8 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 30.7 | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 5 | 8 | 10 | 13 | 13 | 25 | 15 | 17 | 13 | 10 | 5 | 5 | 5 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - |
| 31.6 | - | - | - | - | - | - | - | - | - | 3 | 3 | 8 | 8 | 10 | 12 | 18 | 17 | 20 | 17 | 12 | 12 | 10 | 8 | 8 | 5 | 3 | 5 | - | - | - | - | - | - | - | - | - | - |

Table 69b

Coronal observations at Climax, Colorado (6702A), west limb

| Date GCT | Degrees south of the solar equator | | | | | | | | | | | | | | | | | | 0° | Degrees north of the solar equator | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| 1950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. 2.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 5.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7.8 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 8.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 9.6a | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 11.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 13.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 14.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 15.7a | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 16.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 17.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | 3 | 2 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 18.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 19.7 | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | 1 | 1 | - | - | - | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| 20.6 | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 21.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - |
| 23.7 | X | X | X | X | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | X | X | X | X | X |
| 24.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 26.8 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 27.7 | X | X | X | X | X | X | X | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| 29.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | - | - | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 30.9 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| 31.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Note: On October 17 Climax began taking coronal plates with a new slit.

Table 70b

Coronal observations at Sacramento Peak, New Mexico (5303A), west limb

| Date GCT | Degrees south of the solar equator | | | | | | | | | | | | | | | | | | 0° | Degrees north of the solar equator | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| 1950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. 2.7 | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 5 | 8 | 10 | 10 | 12 | 10 | 13 | 20 | 33 | 28 | 28 | 25 | 13 | 10 | 8 | 8 | 8 | 5 | 5 | 3 | 3 | - | - | - |
| 5.8 | - | - | - | - | - | - | - | 3 | 5 | - | - | - | - | 1 | 5 | 3 | 3 | 5 | X | X | X | X | X | X | 10 | 8 | 5 | 8 | 8 | 5 | 5 | 3 | 3 | 2 | - | - | - |
| 6.9 | - | - | - | 3 | 3 | 5 | 3 | 3 | 5 | 5 | 5 | 8 | 10 | 8 | 10 | 10 | 13 | 8 | 5 | 5 | 5 | 8 | 15 | 13 | 5 | 3 | 5 | 8 | 10 | 10 | 5 | 4 | 3 | 3 | - | - | - |
| 7.7 | - | - | - | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 8 | 8 | 10 | 13 | 10 | 5 | 5 | 5 | 8 | 12 | 13 | 15 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 3 | 3 | - | - | - | - |
| 8.7 | - | - | - | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 8 | 8 | 10 | 8 | 8 | 8 | 8 | 8 | 10 | 10 | 12 | 8 | 6 | 5 | 3 | 3 | 3 | 3 | - | - | - | - | - | - |
| 9.7 | - | - | - | - | - | 3 | 5 | 5 | 5 | 5 | 5 | 8 | 8 | 5 | 5 | 8 | 10 | 8 | 5 | 8 | 10 | 12 | 13 | 15 | 8 | 8 | 8 | 5 | 3 | - | - | - | - | - | - | - | - |
| 10.7 | - | - | - | - | - | 3 | 3 | 3 | 5 | 5 | 5 | 8 | 8 | 8 | 5 | 8 | 8 | 14 | 10 | 8 | 8 | 11 | 13 | 8 | 3 | 8 | 8 | 5 | 5 | 5 | 3 | - | - | - | - | - | - |
| 11.7 | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 8 | 10 | 12 | 17 | 14 | 8 | 5 | 8 | 10 | 13 | 8 | 8 | 10 | 10 | 5 | 5 | 5 | 3 | - | - | - | - | - |
| 12.7 | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 8 | 10 | 15 | 17 | 10 | 8 | 8 | 12 | 22 | 18 | 14 | 12 | 10 | 8 | 10 | 8 | 3 | - | - | - | - | - | - |
| 13.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 8 | 18 | 12 | 5 | 5 | 8 | 15 | 18 | 15 | 13 | 12 | 10 | 8 | 8 | 8 | 5 | - | - | - | - | - | - |
| 14.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 | 15 | 15 | 12 | 12 | 17 | 20 | 12 | 10 | 10 | 8 | 5 | 5 | 5 | 8 | 3 | - | - | - | - | - |
| 15.7 | X | X | X | X | X | X | - | - | - | - | - | - | - | - | - | 3 | 8 | 13 | 15 | 20 | 17 | 20 | 17 | 14 | 12 | 10 | 8 | 5 | - | - | - | - | - | - | - | - | - |
| 16.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 8 | 8 | 14 | 10 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 18.7 | - | - | - | - | - | - | - | - | - | 3 | 5 | 8 | 8 | 10 | 12 | 10 | 10 | 12 | 15 | 20 | 15 | 17 | 14 | 12 | 12 | 10 | 3 | 3 | - | - | - | - | - | - | - | - | - |
| 19.7 | 3 | 3 | 2 | - | - | - | 3 | 3 | 3 | 5 | 8 | 8 | 10 | 12 | 15 | 15 | 15 | 12 | 12 | 15 | 12 | 15 | 12 | 15 | 12 | 12 | 10 | 2 | 2 | 2 | - | - | - | - | - | - | - |
| 21.7 | - | - | - | - | - | - | 5 | 5 | 5 | 5 | 5 | 8 | 8 | 10 | 15 | 18 | 25 | 15 | 13 | 13 | 15 | 15 | 14 | 10 | 12 | 8 | 5 | - | - | - | - | - | - | - | - | - | - |
| 22.7 | - | - | - | - | - | - | - | - | 2 | 3 | 3 | 5 | 5 | 5 | 8 | 12 | 15 | 18 | 13 | 12 | 13 | 12 | 15 | 12 | 12 | 10 | 8 | 5 | 3 | - | - | - | - | - | - | - | - |
| 23.7 | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 5 | 8 | 12 | 15 | 14 | 14 | 8 | 10 | 10 | 12 | 15 | 10 | 12 | 8 | 8 | 5 | 3 | 3 | 3 | 3 | 3 | - | - | - | - |
| 24.6 | - | - | - | - | - | - | - | 3 | 3 | 3 | 5 | 5 | 5 | 8 | 8 | 12 | 13 | 8 | 8 | 8 | 10 | 10 | 14 | 12 | 12 | 10 | 5 | 3 | 3 | 3 | 3 | 3 | 2 | - | - | - | - |
| 25.7 | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 5 | 5 | 8 | 10 | 8 | 10 | 13 | 8 | 10 | 10 | 12 | 8 | 10 | 8 | 8 | 3 | - | - | - | - | - | - | - | - | - |
| 26.7 | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 5 | 5 | 5 | 8 | 15 | 17 | 22 | 15 | 12 | 10 | 12 | 12 | 8 | 8 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - |
| 27.9 | - | - | - | - | - | - | - | - | - | - | - | - | 3 | - | - | 3 | 12 | 20 | 17 | 14 | 8 | 8 | 10 | 12 | 8 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | - | - | - |
| 28.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 12 | 18 | 11 | 8 | 8 | 15 | 15 | 10 | 8 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - |
| 29.7 | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 8 | 5 | 12 | 10 | 12 | 13 | 12 | 12 | 15 | 20 | 10 | 10 | 8 | 5 | 5 | 5 | 5 | 5 | 8 | 5 | 3 | - | - |
| 30.7 | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 5 | 10 | 8 | 8 | 10 | 10 | 12 | 18 | 15 | 12 | 10 | 5 | 5 | 5 | 3 | 5 | 3 | 5 | 3 | 3 | - | - |
| 31.6 | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 5 | 5 | 5 | 5 | 8 | 8 | 5 | 8 | 10 | 10 | 17 | 17 | 12 | 5 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 3 | - | - |

Table 71a

Coronal observations at Sacramento Peak, New Mexico (6374A), east limb

| Date | Degrees north of the solar equator | | | | | | | | | | | | | | | | | | 0° | Degrees south of the solar equator | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GCT | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| 1950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. 2.7 | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 2 | 2 | 2 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | - | - | - |
| 5.8 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | 2 | 8 | 12 | 5 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | - | - | - | - |
| 6.9 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | - | - | - | - | 3 | - | 17 | 10 | 8 | 10 | 5 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | - | - |
| 7.7 | - | - | - | - | - | - | - | 1 | 1 | 1 | 1 | - | - | - | - | 3 | 3 | 10 | 8 | 14 | 10 | 12 | 15 | 5 | 2 | 1 | 3 | 1 | 1 | 1 | 1 | - | - | - | - | - | - |
| 8.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | - | 8 | 5 | 3 | 10 | 10 | 14 | 14 | 8 | - | - | 3 | 1 | 1 | 3 | 3 | 1 | 1 | - | - | - | - |
| 9.7 | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 6 | 2 | 4 | 1 | 9 | 5 | 7 | - | - | - | 2 | 2 | 2 | 3 | 2 | 2 | - | - | - | - |
| 10.7 | - | - | - | - | - | - | 1 | 1 | 1 | - | - | - | - | - | 1 | 5 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - |
| 11.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 8 | 5 | 3 | 10 | 10 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12.7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - | - | - | 1 | 1 | 5 | 9 | 3 | 10 | 15 | 3 | 2 | 2 | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 |
| 13.7 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | 8 | 8 | 5 | 5 | 17 | 12 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| 14.8 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | 8 | 10 | 3 | 5 | 12 | 15 | - | 3 | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - |
| 15.7 | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | 3 | 10 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | X |
| 16.8 | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 18.7 | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 5 | 2 | 3 | 2 | 3 | 2 | - | - | - | - | - | - | - | 2 | 2 | 3 | 3 | 3 | 2 | - | - | - | - | - | - |
| 19.7 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | - | 3 | 3 | 3 | 3 | 2 | 2 | 2 | - | - | - | 2 | 2 |
| 21.7 | - | - | - | 2 | 2 | 2 | - | - | - | 2 | 2 | 2 | 2 | - | - | - | 3 | 5 | 3 | 3 | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 22.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 3 | 3 | 3 | - | - | - | - | 3 | - | - | - | - | - | 2 | 2 | 2 | 2 | - | - | - |
| 23.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | 2 | 2 | 2 | 3 | 3 | - |
| 24.6 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | 2 | 8 | 5 | 8 | 8 | 5 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | - |
| 25.7 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | 3 | 5 | 8 | 10 | 15 | 8 | 10 | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - |
| 26.7 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 8 | 5 | 8 | 8 | 12 | 10 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | - | 2 | 2 | 2 | - | - | - | - |
| 27.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 12 | 8 | 5 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | - | - | - | - | - | - | - | - |
| 28.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 12 | 5 | 3 | 2 | 2 | - | - | - | - | 3 | 3 | 3 | 3 | - | - | - | - | - | - | 2 | 2 |
| 29.7 | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 8 | 3 | 2 | 2 | 3 | - | - | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - |
| 30.7 | 2 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 5 | 2 | 5 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | - | - | 2 | 2 |
| 31.6 | 3 | 3 | 4 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | - | - | - | - | 2 | 8 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | - | - | - | - | - | - |

Table 72a

Coronal observations at Sacramento Peak, New Mexico (6702A), east limb

| Date | Degrees north of the solar equator | | | | | | | | | | | | | | | | | | 0° | Degrees south of the solar equator | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GCT | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| 1950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. 2.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 5.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| 7.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - |
| 8.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 3 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 9.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| 10.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 11.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12.7 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 13.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 14.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 15.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | X |
| 16.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 18.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 19.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 21.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - |
| 22.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 23.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 24.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - |
| 25.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 26.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 27.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 28.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 29.7 | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 30.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 31.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Table 71b

Coronal observations at Sacramento Peak, New Mexico (6374A), west limb

| Date | Degrees south of the solar equator | | | | | | | | | | | | | | | | | | 0° | Degrees north of the solar equator | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GCT | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| 1950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. 2.7 | - | - | - | - | - | 2 | 2 | 2 | 2 | 5 | 3 | 2 | 2 | 3 | 2 | 5 | 3 | - | - | 3 | 5 | 12 | 12 | 3 | 2 | - | - | 3 | - | - | - | - | 3 | 2 | - | - | - |
| 5.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | X | X | X | X | X | X | X | X | X | X | 3 | 2 | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 |
| 6.9 | - | 1 | - | - | - | - | 1 | 1 | - | - | - | - | - | 1 | 1 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 7.7 | - | - | - | - | - | - | 3 | 3 | - | - | - | - | - | - | - | - | 1 | 3 | - | 2 | 2 | 3 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 8.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 1 | - | - | - | - | - | - | - | - | - | - |
| 9.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 8 | 8 | 5 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 13 | 8 | 10 | 5 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 11.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 10 | 10 | 5 | 3 | 3 | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12.7 | 2 | 2 | - | - | - | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 13 | 10 | 12 | 5 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 13.7 | 2 | 2 | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 3 | 3 | 8 | 13 | 6 | - | 2 | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 14.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | - | 8 | 8 | 15 | 5 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 15.7 | X | X | X | X | X | X | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 8 | 10 | 13 | 8 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - |
| 16.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 5 | 5 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 18.7 | - | - | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | - | - | 10 | - | 2 | - | - | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | - | - |
| 19.7 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | - | 2 | 8 | 11 | 5 | 2 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 |
| 21.7 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | 2 | 2 | - | 2 | - | - | - | 8 | 10 | 3 | 2 | 2 | - | - | - | 2 | 2 | 2 | 3 | 3 | 2 | 3 | - | - | - | - | - | - | - |
| 22.7 | - | - | - | - | - | - | 2 | 2 | 2 | - | - | - | - | - | 2 | 5 | 3 | 2 | - | - | - | - | - | - | - | - | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - |
| 23.7 | - | - | - | - | - | - | 3 | 3 | 3 | - | - | - | - | - | - | 3 | 5 | 5 | 2 | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - |
| 24.6 | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 5 | 3 | 3 | 3 | 5 | 3 | - | - | - | 3 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | 2 |
| 25.7 | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 8 | 8 | 5 | - | 2 | 3 | 3 | - | - | - | 2 | 3 | 3 | 5 | 2 | 2 | 2 | 2 | 2 | 2 |
| 26.7 | - | - | - | - | - | - | - | - | - | 2 | 2 | 3 | - | 3 | 3 | 6 | 10 | 10 | 8 | 10 | - | - | 2 | 5 | 2 | 2 | - | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 27.9 | - | - | - | - | - | - | - | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 4 | 3 | 2 | 15 | 8 | 10 | 2 | 2 | 3 | 5 | 12 | - | - | - | - | - | - | - | - | - | - | - | - |
| 28.7 | 2 | 2 | - | - | - | - | 3 | 5 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 12 | 2 | 2 | 3 | - | 5 | 8 | 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| 29.7 | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 5 | 3 | 3 | 5 | 3 | 10 | 1 | 3 | - | - | - | 3 | 3 | 3 | 3 | 2 | 2 | 2 | - | - |
| 30.7 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 4 | 3 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| 31.6 | - | - | - | - | - | - | - | 2 | 2 | 2 | 3 | - | - | 3 | 2 | 3 | 5 | 3 | 2 | - | 3 | 15 | 12 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |

Table 72b

Coronal observations at Sacramento Peak, New Mexico (6702A), west limb

| Date | Degrees south of the solar equator | | | | | | | | | | | | | | | | | | 0° | Degrees north of the solar equator | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GCT | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
| 1950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. 2.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 5.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | X | X | X | X | X | X | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 8.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 9.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 11.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | 3 | 3 | 1 | - | - | - | - | - | - | - | - | - | 2 | 2 |
| 13.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 14.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 15.7 | X | X | X | X | X | X | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 16.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 18.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 19.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 21.7 | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 3 | 3 | 2 | 3 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 23.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 24.6 | - | - | 2 | 2 | 2 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 25.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 26.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 27.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 28.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 29.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 3 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - |
| 30.7 | - | - | 2 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | - | - | - | - | - | - | - | - | - |
| 31.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## Table 73

### Outstanding Solar Flares, July, August and September 1950

| Observatory | Date 1950 | Time Observed Beginning (GCT) | Time Observed Ending (GCT) | Duration (Min) | Area (Mill) (of) (Visible) (Hemisph) | Position Longitude Diff (Deg) | Position Latitude (Deg) | Time of Maximum (GCT) | Int. of Maximum | Relative Area of Maximum (Tenths) | Importance | SID Observed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Boulder | July 1 | 1615 | 1626 | 11 | -- | W53 | S05 | 1616 | 10 | 5 | | |
| " | " 6 | 1850 | 2055 | 125 | 575* | W12 | N16 | 1935 | 15 | 3 | 2 | |
| " | " 6 | 2305 | 2400 | -- | 1008* | W20 | N16 | 2318 | 35 | 6 | 2 | |
| McMath | " 8 | 1850 | | | | W40 | N14 | | | | 1 | |
| " | " 12 | 1539 | | | | W55** | N08** | | | | 2- | |
| " | " 12 | 1620 | | | | E50 | N22 | | | | 1+ | Yes |
| " | " 15 | 1822 | | | | E15 | N20 | | | | 2 | Yes |
| Boulder | " 17 | 2131 | 2215 | -- | 77 | E32 | N12 | 2136 | 15 | 7 | | |
| " | " 17 | 2215 | 2230 | -- | 110 | E32 | N12 | 2226 | 10 | 6 | | |
| Meudon | " 18 | 1320 | | | | W35 | N25 | | | | 1 | Yes |
| McMath | " 18 | 1320 | | | | W33 | N20 | | | | 2- | Yes |
| " | " 18 | 1400 | | | | E17** | N12** | | | | 1 | |
| " | " 19 | 1500 | | | | W45 | N20 | | | | 1 | |
| Boulder | " 20 | 1939 | 1955 | -- | 177 | E13 | N08 | 1942 | 12 | 5 | | |
| Wendelstein | " 21 | 0508 | 0536 | -- | 291 | E09 | N08 | | | | 1 | |
| McMath | " 21 | 1315 | | | | E10 | N12 | | | | 2+ | Yes |
| Wendelstein | " 21 | 1329 | 1348 | -- | 291 | E05 | N08 | 1329 | | | 1 | |
| McMath | " 21 | 1345 | | | | W59 | N23 | | | | 2 | |
| " | " 21 | 2114 | | | | E50 | N10 | | | | 1+ | |
| Boulder | " 22 | 1525 | 1630 | 65 | 199 | W11 | N06 | 1554 | 25 | 5 | 2 | Yes |
| McMath | " 22 | 1550 | | | | W07 | N06 | | | | 1+ | Yes |
| McMath | " 25 | 1924 | | | | E15 | S12 | | | | 1 | |
| Wendelstein | " 26 | 0626 | 0645 | -- | 291 | E47 | S11 | 0626 | | | 1 | |
| McMath | " 26 | 1250 | | | | W16 | S16 | | | | 1 | |
| Boulder | " 26 | 1825 | 1840 | 15 | 177 | E41 | S07 | 1832 | 6 | 2 | | |
| McMath | " 26 | 1910 | | | | E46** | S12** | | | | 1- | |
| " | " 27 | 2040 | | | | W30 | S12 | | | | 1- | |
| " | " 27 | 2050 | | | | E35 | S12 | | | | 1 | |
| Boulder | " 28 | 1415 | 1530 | 75 | 364 | E24 | S12 | 1430 | 10 | 2 | | |
| McMath | " 28 | 1442 | | | | E27 | S12 | | | | 1 | |
| Boulder | " 28 | 1800 | 1820 | 20 | 99 | W18 | N07 | 1810 | 8 | 5 | | |
| McMath | " 29 | 1230 | | | | E85 | S08 | | | | 1 | |
| Boulder | " 29 | 1440 | 1510 | 30 | 55 | E81 | S07 | 1448 | 8 | 3 | | |
| McMath | " 29 | 1448 | | | | E85 | S08 | | | | 1 | |
| Boulder | " 29 | 1710 | 1820 | 70 | 77 | E81 | S07 | 1720 | 12 | 3 | | Yes |
| " | " 31 | 2400 | 2422 | 22 | 157 | E49 | S07 | 2418 | 12 | 5 | | |
| Boulder | Aug 1 | 1635 | 1710 | 35 | 121 | E34 | S08 | 1645 | 10 | 4 | | |
| " | " 1 | 1725 | 1900 | 95 | 121 | E44 | S06 | 1817 | 6 | 3 | | |
| " | " 1 | 1935 | 2015 | 40 | 431 | E32 | S08 | 1948 | 10 | 3 | | |
| " | " 1 | 2030 | 2145 | 75 | 276 | W33 | S12 | 2047 | 12 | 3 | | |
| " | " 1 | 2054 | 2115 | 21 | 155 | E35 | S09 | 2100 | 12 | 5 | | |
| McMath | " 2 | 1520 | | | | E24 | S10 | | | | 1 | |
| Boulder | " 2 | 1545 | 1615 | 30 | 298 | E21 | S08 | 1555 | 15 | 4 | 1 | Yes |
| Meudon | " 2 | 1548 | | | | E25 | S05 | | | | 2 | Yes |
| Boulder | " 2 | 1645 | 1735 | 50 | 232 | E24 | S06 | 1705 | 6 | 1 | | |
| " | " 2 | 1910 | 2020 | -- | 199 | E30 | S09 | 2005 | 6 | | | |
| " | " 2 | 2100 | 2110 | 10 | 55 | E31 | S06 | 2105 | 6 | 1 | | |
| " | " 2 | 2205 | 2215 | 10 | 365 | E18 | S06 | 2206 | 20 | 3 | | Yes |
| " | " 2 | 2240 | 2340 | -- | 88 | E20 | S05 | -- | 4 ? | | | |
| Meudon | " 3 | 1410 | | | | E15 | S05 | | | | 1 | |
| Boulder | " 3 | 1530 | 1555 | 25 | 111 | E12 | S07 | 1538 | 14 | 5 | | |
| " | " 3 | 1625 | 1630 | -- | 221 | E12 | S07 | 1630 | 20 | 3 | | Yes |
| Meudon | " 4 | 0915 | | | | E05 | S05 | | | | 1 | |
| Boulder | " 4 | 1515 | 1535 | 20 | 136 | E31 | S16 | 1522 | 4 | 4 | | |
| " | " 4 | 2250 | 2419 | -- | 742 | W06 | S08 | 2338 | 32 | 6 | | Yes |

Table 73 (Continued)

| Observatory | Date 1950 | Time Observed Beginning (GCT) | Time Observed Ending (GCT) | Duration (Min) | Area (Mill) (of) (Visible) (Hemisph) | Position Longitude Diff (Deg) | Position Latitude (Deg) | Time of Maximum (GCT) | Int. of Maximum | Relative Area of Maximum (Tenths) | Importance | SID Observed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| McMath | Aug 7 | 1305 | | | | W35 | S08 | | | | 1+ | |
| Boulder | " 7 | 1650 | 1713 | 23 | 113 | W45 | S07 | 1709 | 6 | 1 | | |
| " | " 10 | 1758 | 1815 | -- | 183 | E17 | N15 | 1806 | 10 | 4 | | |
| " | " 10 | 2230 | 2249 | -- | 80 | E13 | N15 | 2235 | 10 | 7 | | |
| " | " 10 | 2249 | 2256 | 7 | 34 | W53 | S10 | 2252 | 10 | 8 | | |
| " | " 14 | 1555 | 1618 | 23 | 422 | E22 | N11 | 1562 | 15 | 4 | | |
| " | " 14 | 1620 | 1715 | 55 | 137 | E25 | N10 | 1639 | 10 | 6 | | |
| " | " 14 | 1800 | 1810 | 10 | 34 | E06 | S05 | 1807 | 8 | 4 | | |
| " | " 14 | 2045 | 2100 | 15 | 137 | E18 | N16 | 2052 | 10 | 2 | | |
| Meudon | " 15 | 0746 | | | | E15 | N15 | | | | 1 | |
| Boulder | " 15 | 1745 | 1835 | 50 | 263 | E04 | N15 | 1762 | 18 | 3 | 2 | Yes |
| " | " 15 | 1925 | 1940 | 15 | 34 | E05 | N16 | 1933 | 6 | 8 | | |
| Wendelstein | " 16 | 0634 | 0657 | -- | 291 | E01 | N17 | | | | 1 | |
| Boulder | " 17 | 1415 | 1441 | -- | 388 | W08 | N13 | 1437 | 15 | 7 | | |
| McMath | " 17 | 1441 | | | | W09 | N12 | | | | 1 | |
| Boulder | " 18 | 1515 | 1538 | -- | -- | W30 | N17 | -- | -- | -- | | |
| Wendelstein | " 19 | 1000 | 1018 | -- | 485 | E31 | N14 | 1001 | | | 1-2 | |
| Boulder | " 19 | 1554 | 1613 | -- | -- | W41 | N14 | -- | -- | -- | | |
| McMath | " 19 | 1715 | | | | E17 | S10 | | | | 1 | |
| Boulder | " 22 | 1725 | 1915 | 110 | 575 | W14 | N13 | 1744 | 17 | 6 | | |
| " | " 22 | 2035 | 2120 | 45 | 100 | W17 | N13 | 2044 | 12 | 4 | | |
| " | " 22 | 2240 | 2250 | 10 | 66 | W17 | N13 | 2245 | 6 | 8 | | |
| Wendelstein | " 23 | 1334 | 1349 | 15 | 291 | W29 | S12 | 1336 | | | 1 | |
| McMath | " 23 | 1345 | | | | W27 | S12 | | | | 1+ | |
| Boulder | " 23 | 1700 | 1711 | 11 | 66 | W26 | S13 | 1704 | 15 | 7 | | |
| " | " 24 | 1453 | 1455 | 2 | 22 | W38 | S14 | 1453 | 6 | 1 | | |
| Meudon | " 25 | 1027 | | | | W55 | S15 | | | | 1 | |
| Boulder | " 27 | 1645 | 1725 | 40 | 100 | W34 | S20 | 1654 | 8 | 8 | | |
| McMath | " 29 | 1515 | | | | E64** | N13** | | | | 1 ? | |
| Boulder | " 29 | 1815 | 1845 | 30 | 199 | E69 | N14 | 1826 | 10 | 3 | 2 | Yes |
| " | " 29 | 2105 | 2115 | 10 | 55 | W36 | S00 | 2110 | 8 | 6 | | |
| " | " 30 | 1455 | 1510 | 15 | 188 | E57 | N16 | 1459 | 8 | 2 | | |
| " | " 30 | 1735 | 1749 | 14 | 33 | E56 | N16 | 1738 | 10 | 7 | | |
| " | " 30 | 1817 | 1843 | 26 | 55 | E53 | N15 | 1832 | 12 | 3 | | Yes |
| Wendelstein | " 31 | 0838 | 0842 | -- | 242 | E45 | N16 | 0842 | | | 2 | |
| Boulder | " 31 | 1423 | 1429 | -- | 22 | E40 | N13 | 1423 | 12 | 7 | | |
| " | " 31 | 1610 | 1612 | 2 | 22 | E40 | N13 | 1611 | 4 | 5 | | |
| " | " 31 | 1735 | 1744 | 9 | 44 | W27 | N12 | 1940 | 6 | 4 | | |
| Boulder | Sept 1 | 1633 | 1638 | 5 | 18 | E30 | S24 | 1634 | 6 | 9 | | |
| " | " 1 | 1704 | 1708 | 4 | 12 | W47 | N13 | 1705 | 12 | 9 | | |
| " | " 1 | 1750 | 1755 | 5 | 24 | W47 | N14 | 1750 | 8 | 9 | | |
| " | " 1 | 1904 | 1906 | -- | 8 | W42 | N13 | 1906 | 12 | 9 | | |
| " | " 1 | 1926 | 1935 | -- | 100 | E27 | N15 | 1935 | 12 | 6 | | |
| " | " 3 | 1635 | 1706 | 31 | 77 | W72 | N22 | 1652 | 10 | 9 | | |
| " | " 3 | 1855 | 1910 | 15 | 60 | W72 | N24 | 1855 | 6 | 5 | | |
| " | " 4 | 1500 | 1525 | -- | 35 | W83 | N12 | 1516 | 6 | 9 | | |
| " | " 7 | 1849 | 1856 | -- | 25 | E70 | S04 | 1850 | 12 | 8 | | |
| " | " 7 | 2115 | 2136 | 21 | 43 | E70 | S04 | 2130 | 12 | 7 | | |
| " | " 18 | 1920 | 1922 | 2 | 20 | W20 | S12 | 1920 | 10 | 9 | | |
| " | " 19 | 1709 | 1724 | 15 | 400 | W30 | S11 | 1711 | 25 | 4 | 2 | Yes |
| McMath | " 19 | 1710 | | -- | | W22** | S13** | | | | 3 | Yes |
| " | " 20 | 1838 | | --- | | W90 | N03 | | | | 1 | |
| Boulder | " 20 | 2135 | 2240 | 65 | 30 | W39 | S06 | 2203 | 12 | 5 | | |
| " | " 22 | 1908 | 1915 | 7 | 150 | W17 | N16 | 1910 | 12 | 5 | | |
| McMath | " 26 | 1840 | | -- | | E12 | N15 | | | | 1 | |

*Area not corrected for foreshortening; after this date all areas given in millionths of sun's visible hemisphere
**Longitude and latitude of calcium area in which solar flare was observed.

Table 74

## Indices of Geomagnetic Activity for September 1950

Preliminary values of mean K-indices, Kw, from 36 observatories;
Preliminary values of international character-figures, C;
Geomagnetic planetary three-hour-range indices, Kp;
Magnetically selected quiet and disturbed days

| Gr. Day 1950 | Values Kw | Sum | C | Values Kp | Sum | Final Sel. Days |
|---|---|---|---|---|---|---|
| 1 | 1.0 1.2 1.4 1.4 1.6 1.4 0.9 1.8 | 10.7 | 0.0 | 1o1+1+1+ 2-1+1-2o | 11- | Five |
| 2 | 1.4 1.7 0.9 0.8 0.8 1.2 2.6 1.7 | 11.1 | 0.4 | 2-2o1o0+ 1o1-2+2- | 11- | Quiet |
| 3 | 1.9 3.2 3.8 3.9 4.4 4.9 4.8 5.8 | 32.7 | 1.6 | 2o4o5-5- 5+6-6o7o | 39+ | |
| 4 | 5.0 3.5 4.4 3.9 3.6 3.4 3.8 4.6 | 32.2 | 1.5 | 6o4o5+5- 4-4o5-5o | 37+ | 1 |
| 5 | 4.9 4.2 4.7 5.1 4.0 4.0 4.3 4.7 | 35.9 | 1.6 | 6o5+6o6+ 5-5o5+5+ | 44o | 14 |
| | | | | | | 15 |
| 6 | 4.4 4.6 4.2 4.4 4.1 3.4 3.4 3.6 | 32.1 | 1.3 | 5+6-5+6- 5o4o4-4o | 39- | 22 |
| 7 | 2.9 2.6 3.2 3.8 3.5 2.6 2.7 2.9 | 24.2 | 0.9 | 3+3o4o4o 4o3o3o3o | 27+ | 29 |
| 8 | 2.1 3.9 4.2 4.2 3.4 4.2 4.5 4.6 | 31.1 | 1.5 | 2+4+5+5+ 4-5-6-5o | 36+ | |
| 9 | 4.3 3.2 2.6 2.3 2.0 1.8 3.1 2.5 | 21.8 | 0.8 | 5o3+3+3- 1+2-3o3- | 23o | |
| 10 | 4.4 2.3 1.3 1.7 3.1 3.7 4.0 3.0 | 23.5 | 1.0 | 5o3o1o2- 3+4+4+3+ | 26o | |
| 11 | 3.7 4.4 3.0 2.7 1.2 1.4 2.6 2.8 | 21.8 | 0.8 | 4+5+4-3o 1o1+3o4- | 25+ | Five |
| 12 | 2.8 1.4 2.6 3.1 2.9 1.0 0.7 1.5 | 16.0 | 0.4 | 3+1+3+3+ 3+1o1-1+ | 18- | Dist |
| 13 | 1.7 1.6 1.4 1.8 1.6 3.0 4.2 3.3 | 18.6 | 0.7 | 2o2+2-2- 1+3o5-3+ | 20o | |
| 14 | 1.2 1.1 0.9 1.1 0.7 0.9 0.7 1.1 | 7.7 | 0.0 | 1+1+1o1o 1-1o1-1+ | 8+ | 3 |
| 15 | 0.5 0.5 1.2 1.2 1.1 1.4 0.4 0.7 | 7.0 | 0.0 | 0+0o1-1o 1o1+0+1- | 5+ | 4 |
| | | | | | | 5 |
| 16 | 1.9 1.2 1.4 3.4 3.7 4.6 3.6 2.8 | 22.6 | 1.0 | 2+1+2-4- 4-5+4-3o | 25- | 6 |
| 17 | 1.8 2.5 2.7 2.6 2.6 4.1 3.7 3.9 | 23.9 | 1.0 | 2o3+4-3o 3o4+4o4+ | 28- | 24 |
| 18 | 3.8 3.3 3.6 3.3 3.6 2.7 2.3 3.4 | 26.0 | 1.0 | 5-4o5-4o 4o3o3-4o | 31o | |
| 19 | 3.9 2.1 2.8 4.2 3.6 1.8 2.8 4.7 | 25.9 | 1.2 | 4+3-3+5o 5-2o3o5+ | 30+ | |
| 20 | 5.1 4.3 3.4 4.0 3.6 4.0 4.0 2.9 | 31.3 | 1.3 | 6-5o4o5- 4o5-5-3+ | 36o | Ten |
| | | | | | | Quiet |
| 21 | 3.0 2.9 1.3 1.7 0.7 1.1 2.2 0.9 | 13.8 | 0.4 | 4-4-2o2- 1-1-2+1- | 15+ | |
| 22 | 0.5 1.1 0.5 0.8 1.3 1.9 1.8 1.0 | 8.9 | 0.0 | 0+1+0+1- 1o2-2-1- | 8- | 1 |
| 23 | 0.9 1.0 2.4 3.9 3.3 3.9 4.4 4.6 | 24.4 | 1.2 | 1o1+3-5- 4o4+5o5o | 28o | 2 |
| 24 | 4.5 2.4 1.8 2.8 3.6 4.6 4.8 5.3 | 29.8 | 1.4 | 5+3o2-3o 4+5o5+6+ | 34o | 12 |
| 25 | 4.0 3.3 3.8 2.7 3.3 4.9 3.7 4.5 | 30.2 | 1.3 | 4+4o5-4- 4-6-4o5+ | 35+ | 14 |
| | | | | | | 15 |
| 26 | 2.7 2.0 1.8 1.9 1.9 2.5 4.5 3.2 | 20.5 | 0.8 | 3+2+2+2o 2o3o5o4- | 24- | 21 |
| 27 | 2.6 2.2 2.5 2.6 1.6 1.7 2.2 1.7 | 17.1 | 0.4 | 3o3-3o3+ 2-2-2+2- | 19+ | 22 |
| 28 | 0.9 1.2 2.0 2.3 2.0 1.7 1.7 1.9 | 13.7 | 0.3 | 1-1+2+3- 2o1+2-2o | 14o | 27 |
| 29 | 0.7 0.7 1.0 0.6 0.7 1.0 1.2 1.3 | 7.2 | 0.0 | 1-0+1o0+ 0+1-1o1o | 5+ | 28 |
| 30 | 1.1 1.1 1.1 1.7 1.0 2.8 4.2 3.4 | 16.4 | 0.8 | 1o1+1+2o 1-3o4+4- | 17+ | 29 |
| Mean | 2.65 2.36 2.40 2.66 2.48 2.72 2.99 3.00 | 2.66 | 0.82 | | | |

## Table 75

### Sudden Ionosphere Disturbances Observed at Washington, D. C.

### October 1950

| 1950 Day | GCT Beginning | GCT End | Location of transmitters | Relative intensity at minimum* | Other phenomena |
|---|---|---|---|---|---|
| October | | | | | |
| 11 | 1933 | 2010 | Ohio, D. C., Colombia | 0.02 | Solar flare** 1920 |
| 29 | 1742 | 1830 | Ohio, D.C. | 0.2 | |

*Ratio of received field intensity during SID to average field intensity before and after, for station KQ2XAU (formerly W8XAL), 6080 kilocycles, 600 kilometers distant.

**Time of observation at the High Altitude Observatory, Boulder, Colorado.

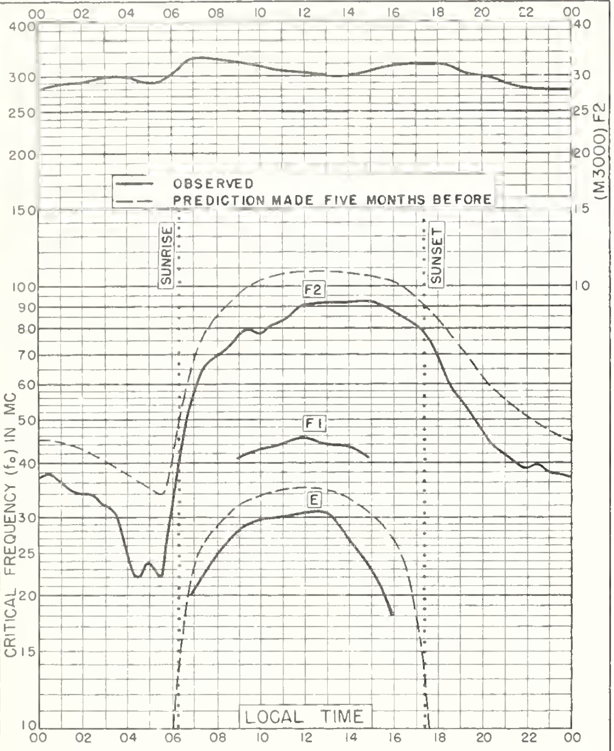



Fig. 1. WASHINGTON, D. C.
38.7°N, 77.1°W OCTOBER 1950

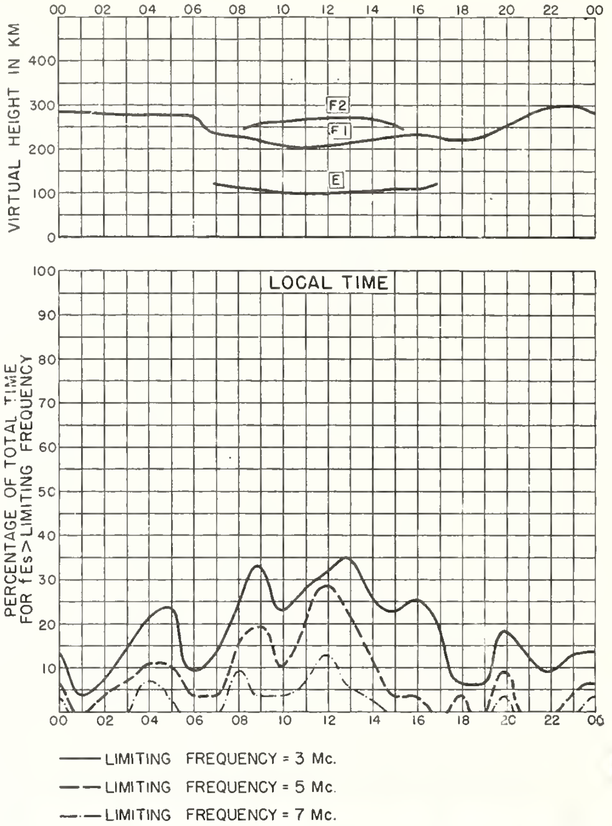



Fig. 2. WASHINGTON, D. C. OCTOBER 1950

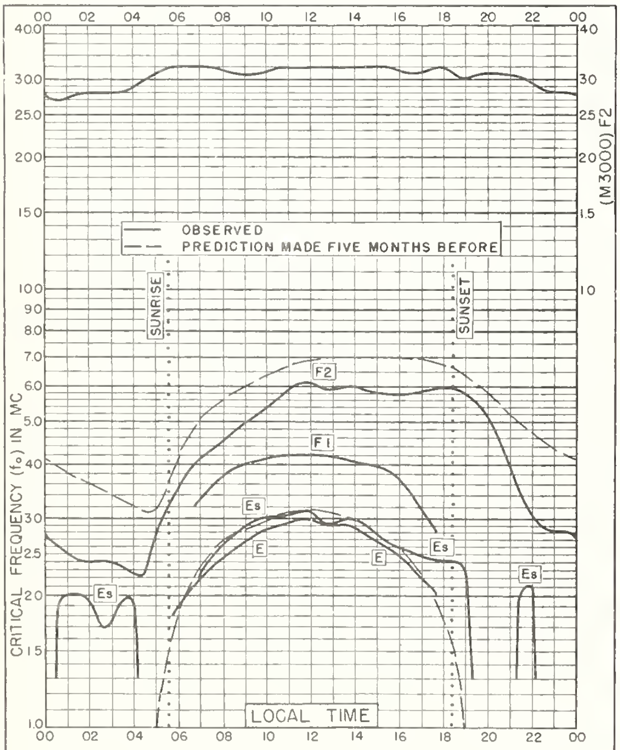



Fig. 3. OSLO, NORWAY
60.0°N, 11.0°E SEPTEMBER 1950

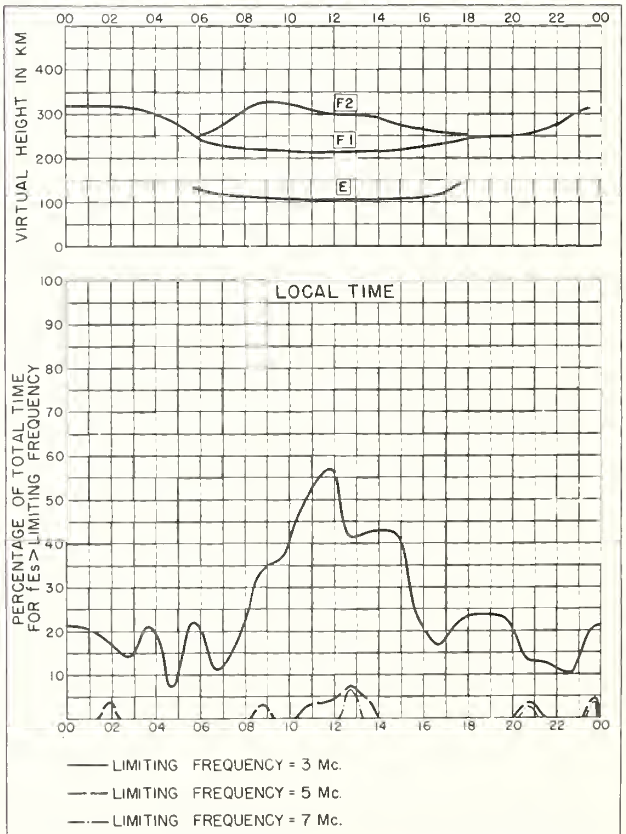



Fig. 4. OSLO, NORWAY SEPTEMBER 1950

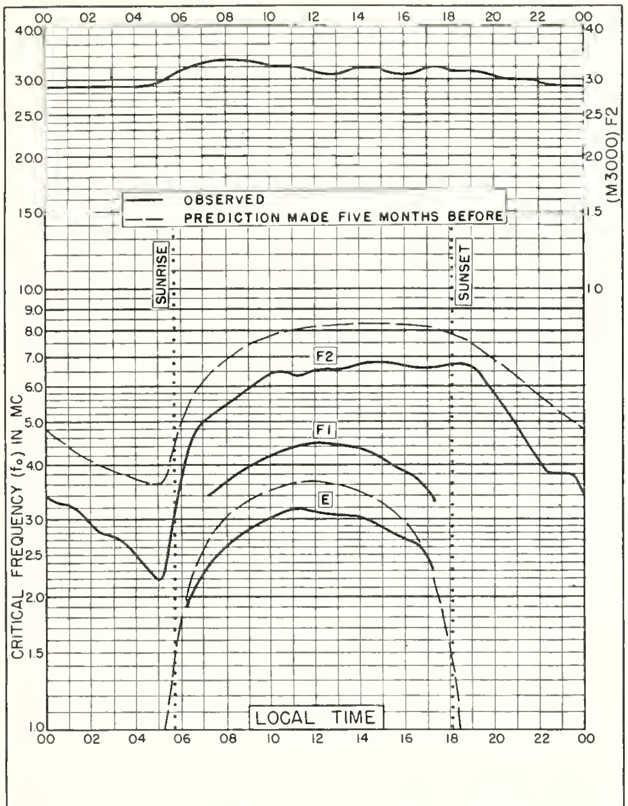



Fig. 5. BOSTON, MASSACHUSETTS
42.4°N, 71.2°W SEPTEMBER 1950

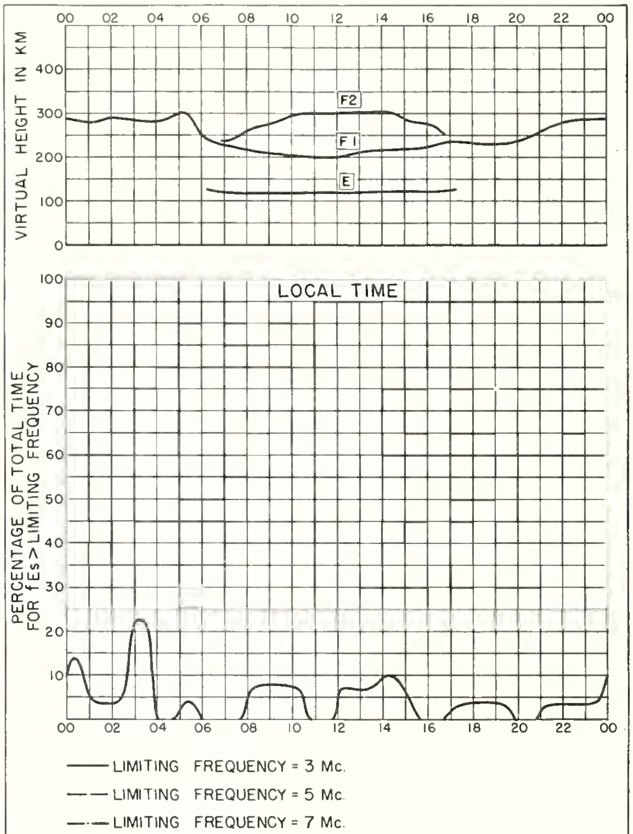



Fig. 6. BOSTON, MASSACHUSETTS SEPTEMBER 1950

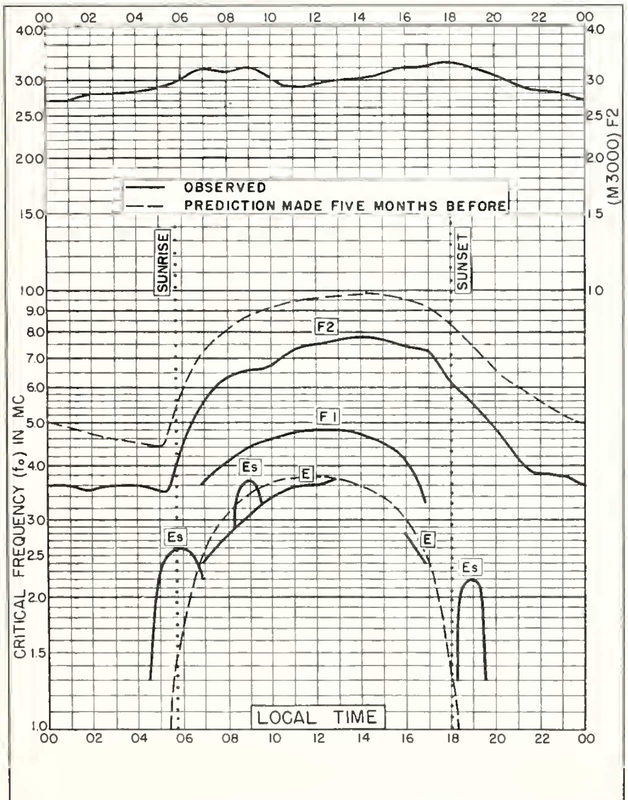



Fig. 7. SAN FRANCISCO, CALIFORNIA
37.4°N, 122.2°W SEPTEMBER 1950

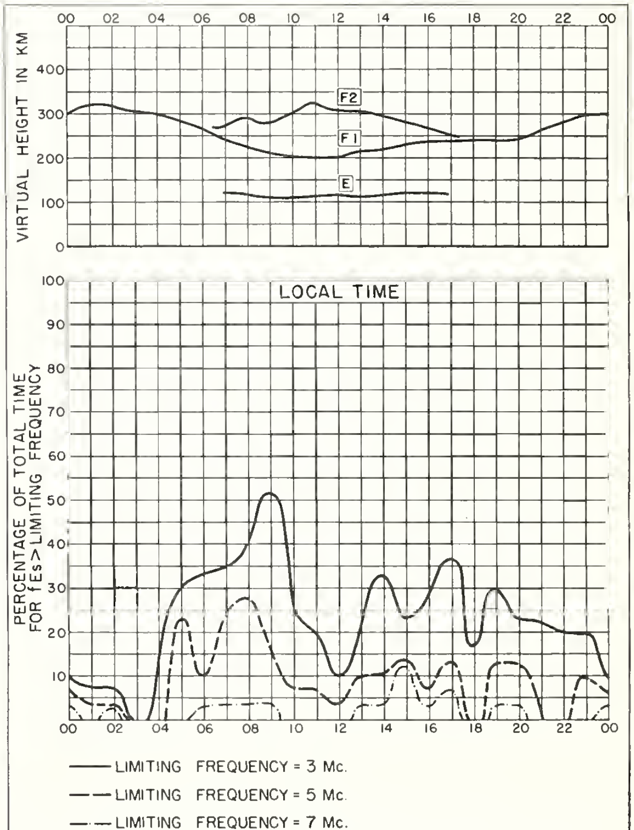



Fig. 8. SAN FRANCISCO, CALIFORNIA SEPTEMBER 1950

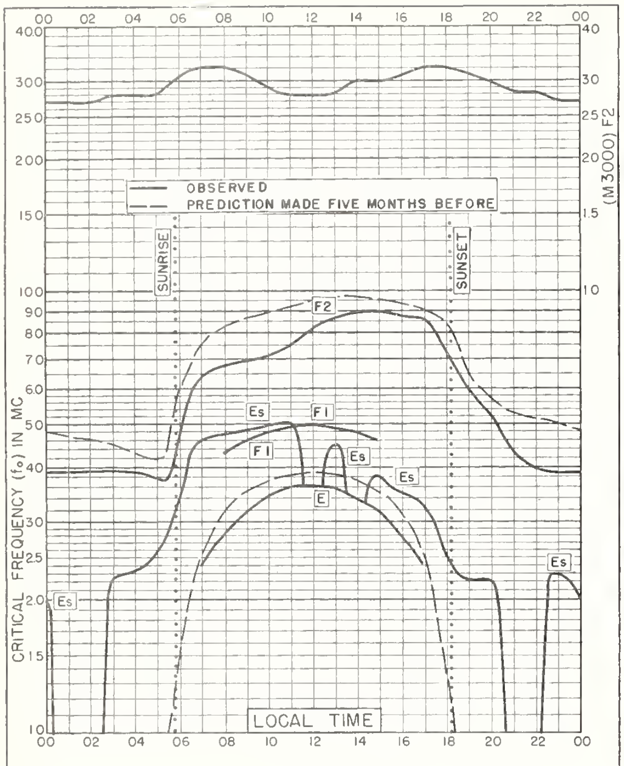



Fig. 9. WHITE SANDS, NEW MEXICO
32.3°N, 106.5°W SEPTEMBER 1950

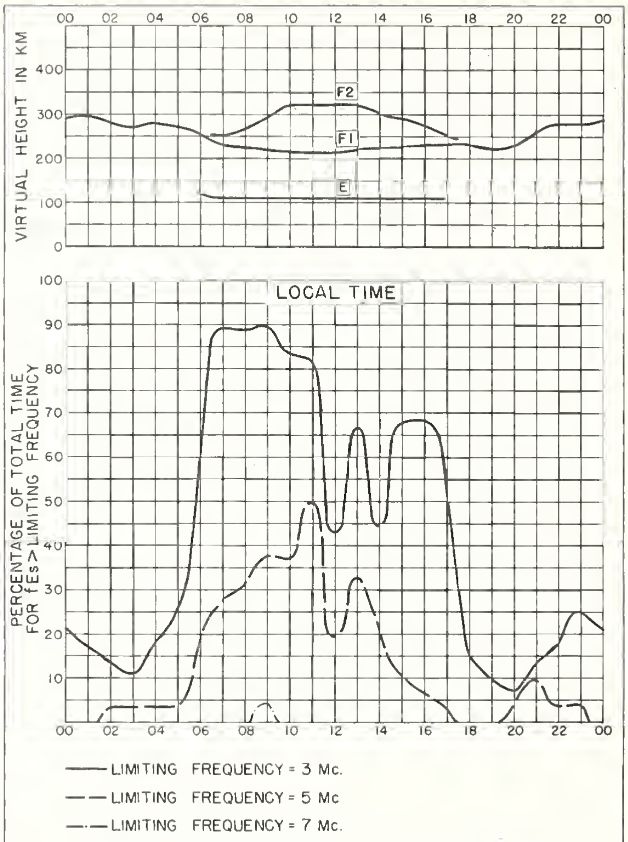



Fig. 10. WHITE SANDS, NEW MEXICO SEPTEMBER 1950

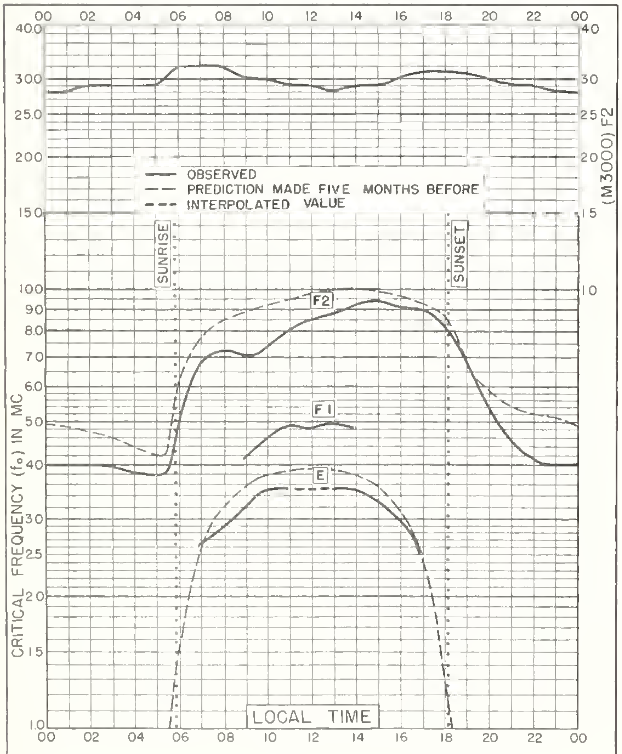



Fig. 11. BATON ROUGE, LOUISIANA
30.5°N, 91.2°W SEPTEMBER 1950

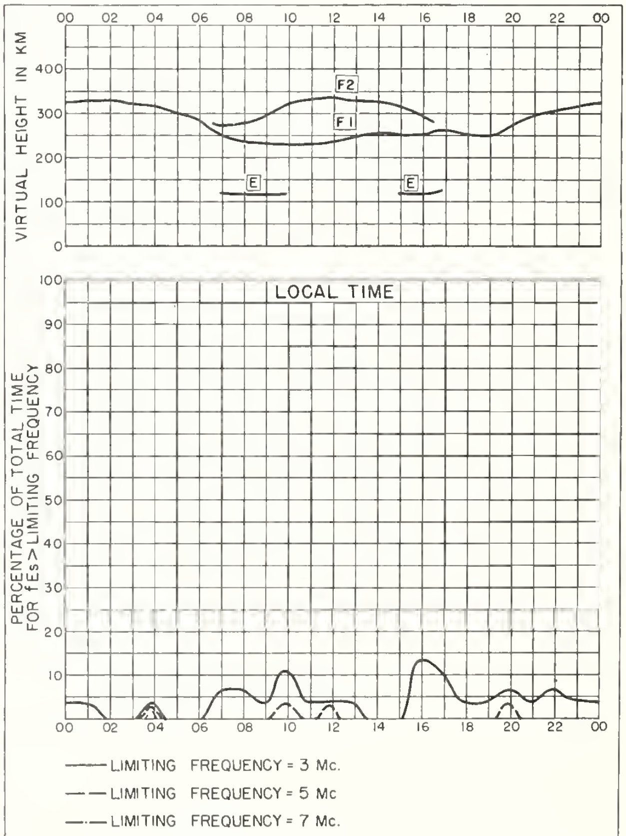



Fig. 12. BATON ROUGE, LOUISIANA SEPTEMBER 1950

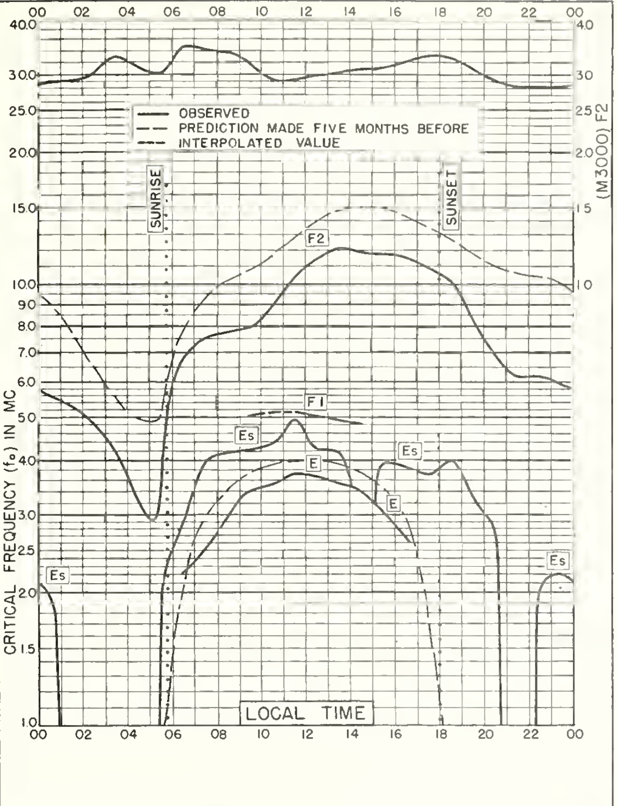



Fig. 13. OKINAWA I.
26.3°N, 127.7°E SEPTEMBER 1950

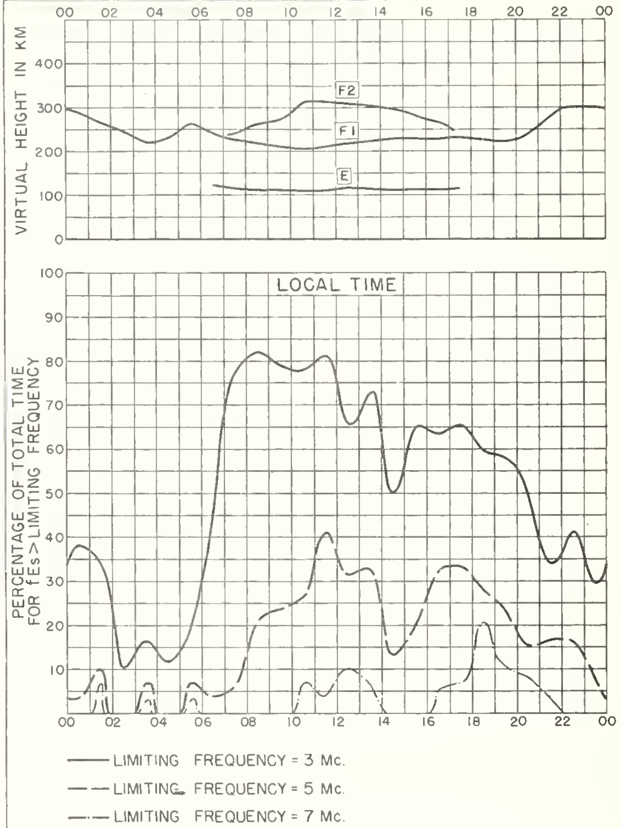



Fig. 14. OKINAWA I. SEPTEMBER 1950

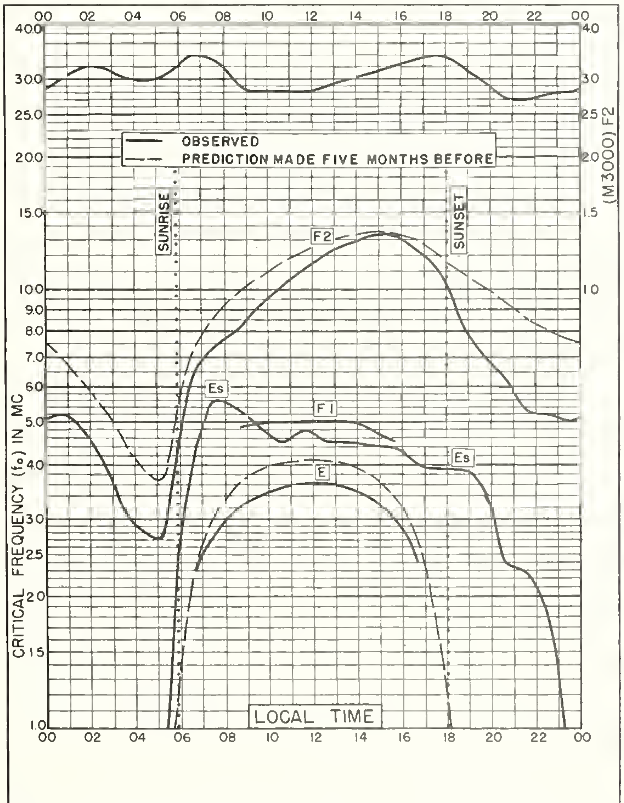



Fig. 15. MAUI, HAWAII
20.8°N, 156.5°W SEPTEMBER 1950

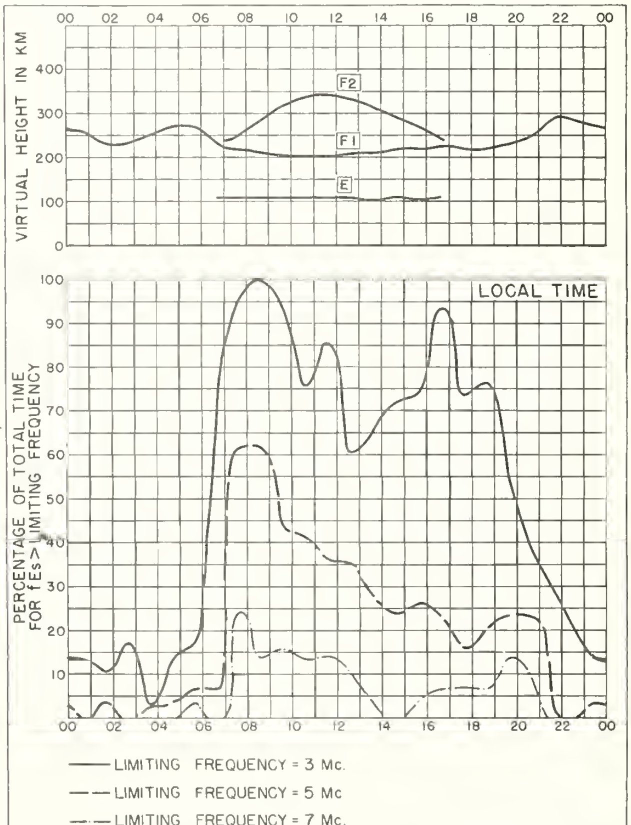



Fig. 16. MAUI, HAWAII SEPTEMBER 1950

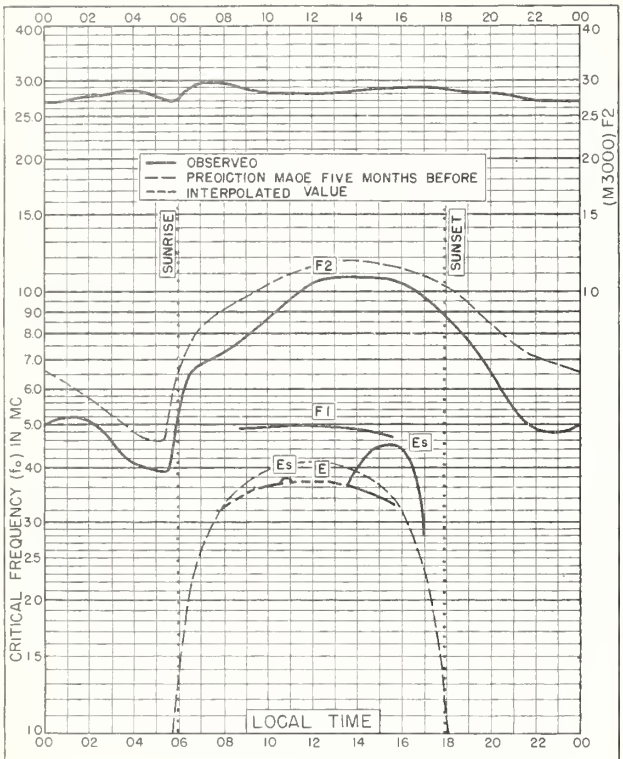



Fig. 17. SAN JUAN, PUERTO RICO
18.4°N, 66.1°W SEPTEMBER 1950

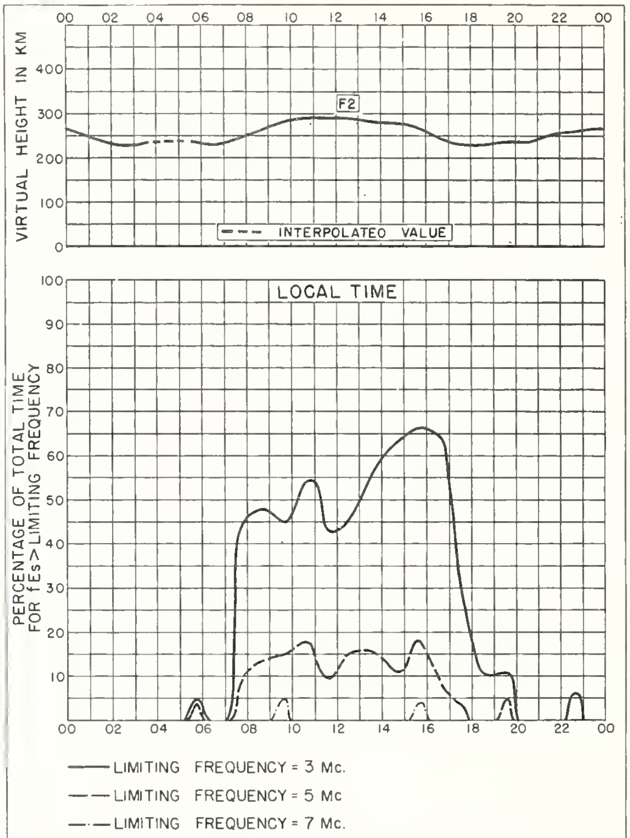



Fig. 18. SAN JUAN, PUERTO RICO SEPTEMBER 1950

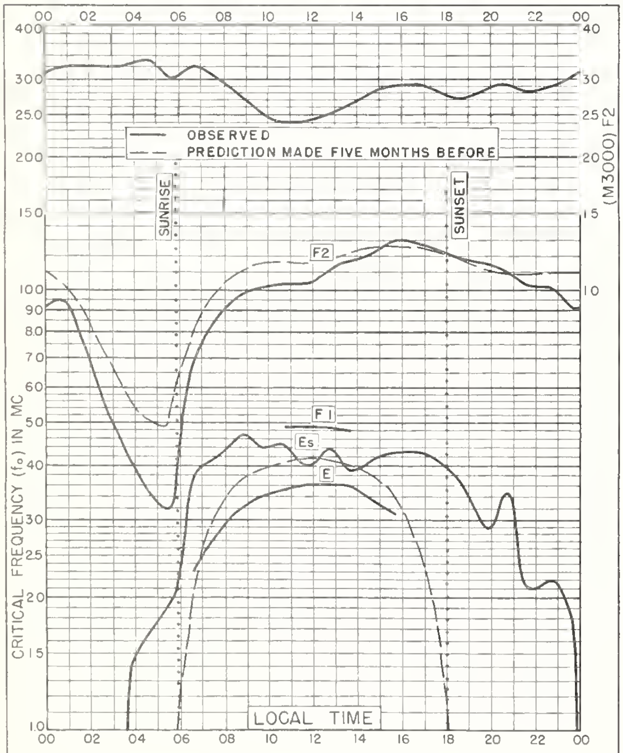



Fig. 19. GUAM I.
13.6°N, 144.9°E SEPTEMBER 1950

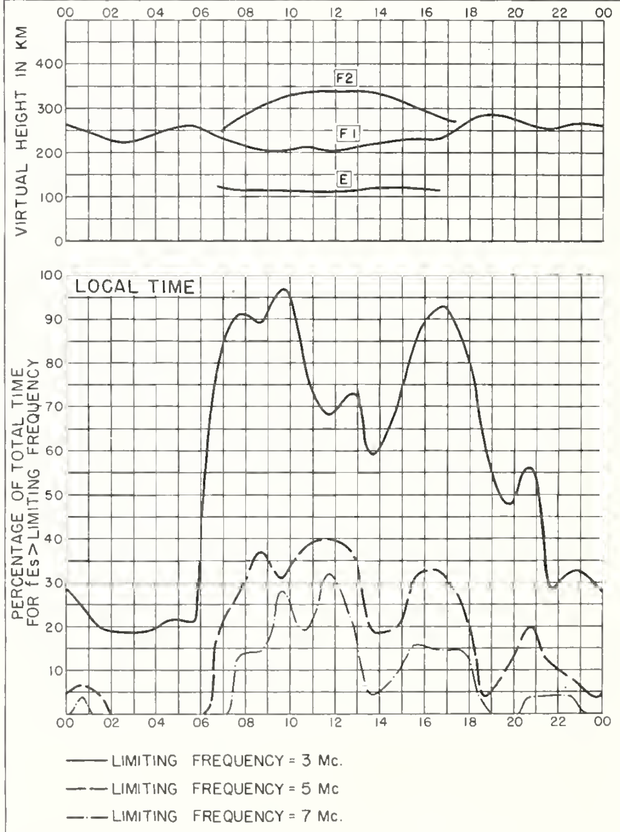



Fig. 20. GUAM I. SEPTEMBER 1950

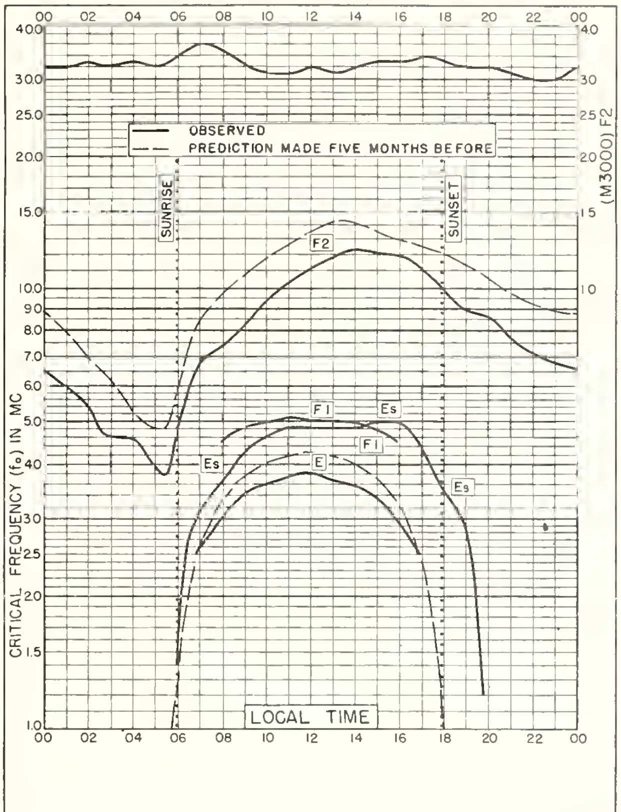



Fig. 21. TRINIDAD, BRIT. WEST INDIES
10.6°N, 61.2°W SEPTEMBER 1950

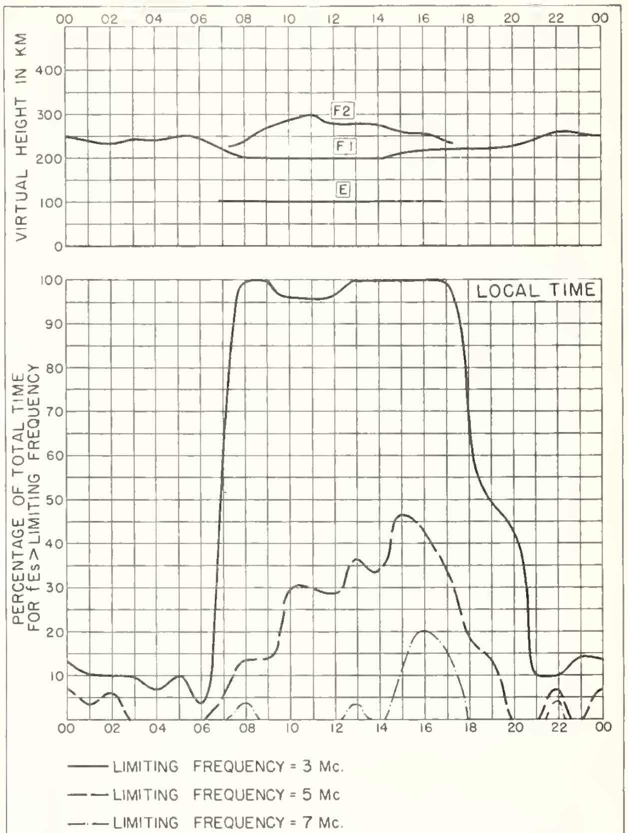



Fig. 22. TRINIDAD, BRIT. WEST INDIES SEPTEMBER 1950

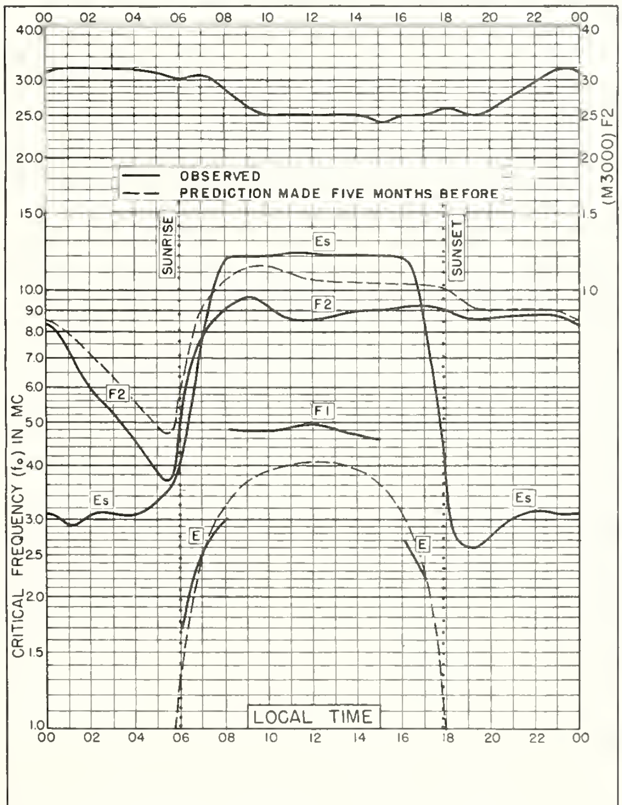



Fig. 23. HUANCAYO, PERU
12.0°S, 75.3°W SEPTEMBER 1950

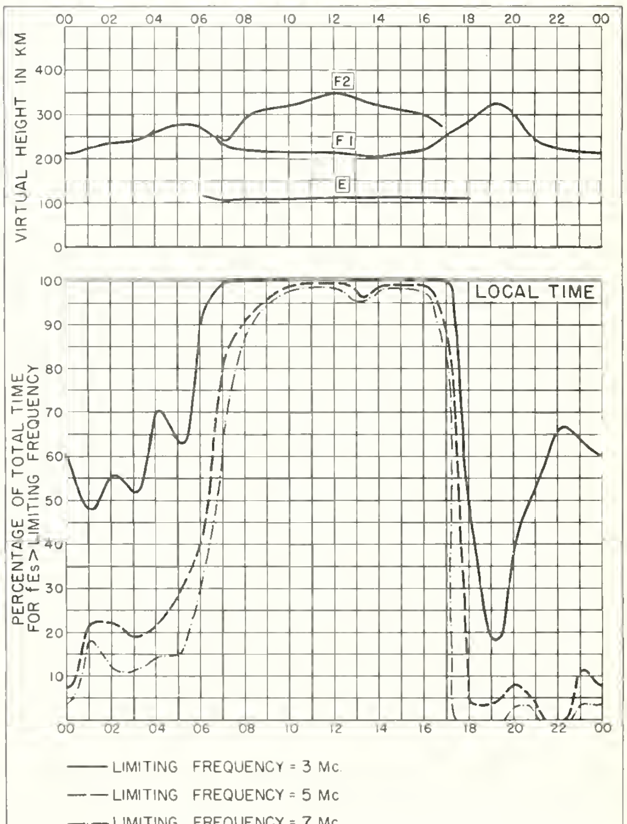



Fig. 24. HUANCAYO, PERU SEPTEMBER 1950

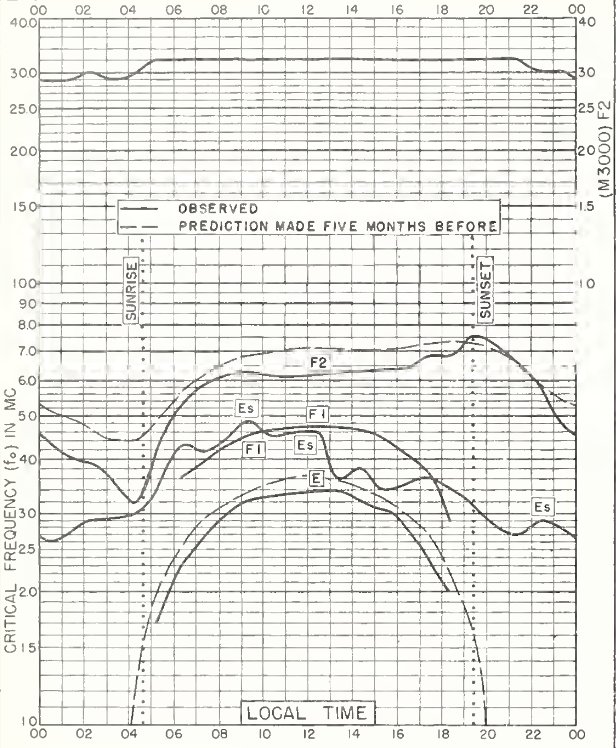



Fig. 25. De BILT, HOLLAND
52. 1°N, 5. 2°E AUGUST 1950

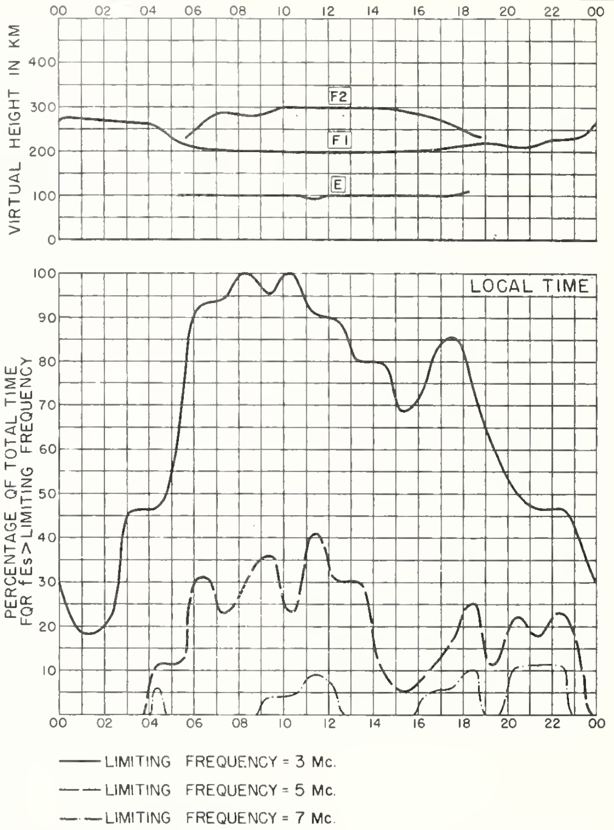



Fig. 26. De BILT, HOLLAND AUGUST 1950

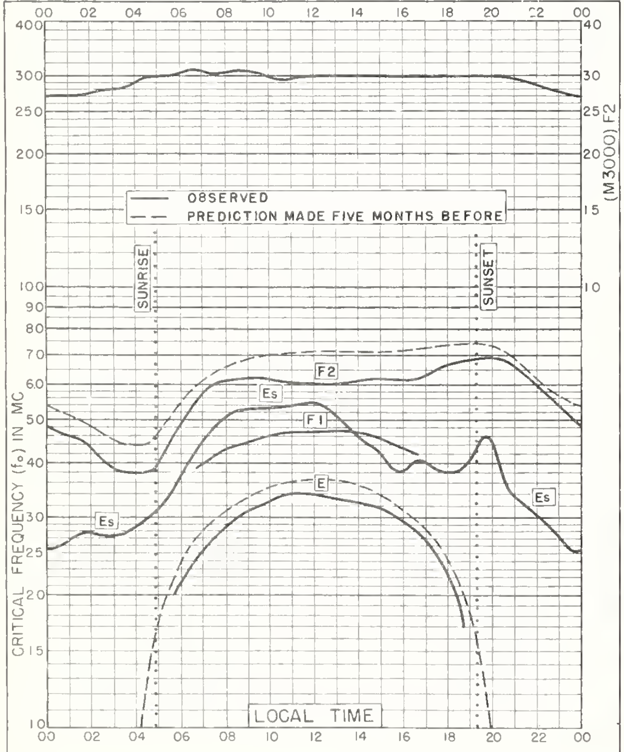



Fig. 27. LINDAU/HARZ, GERMANY
51. 6°N, 10. 1°E AUGUST 1950

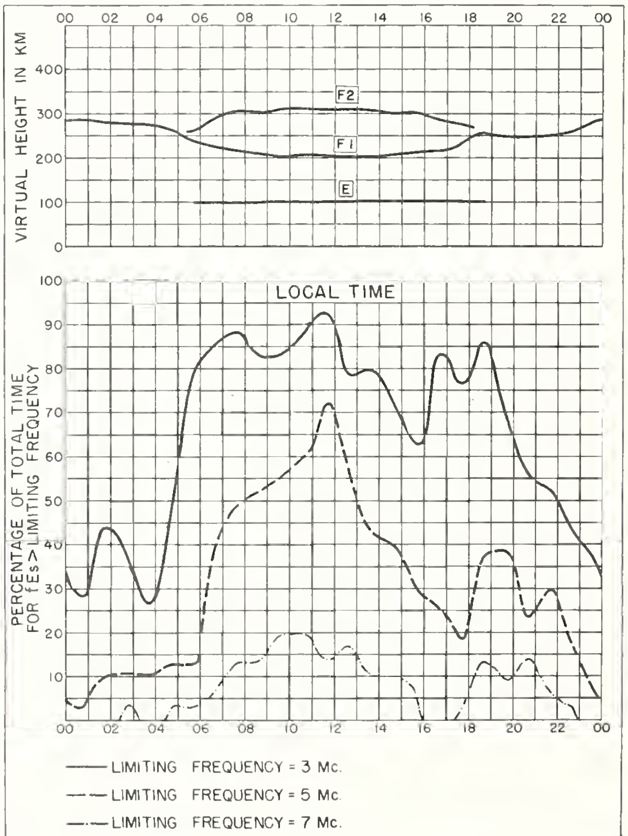



Fig. 28. LINDAU/HARZ, GERMANY AUGUST 1950

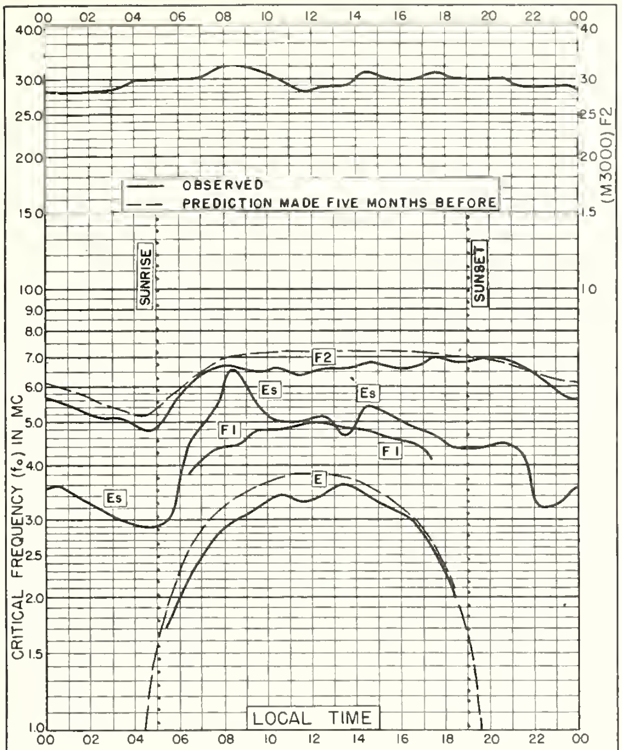



Fig. 29. WAKKANAI, JAPAN
45.4°N, 141.7°E AUGUST 1950

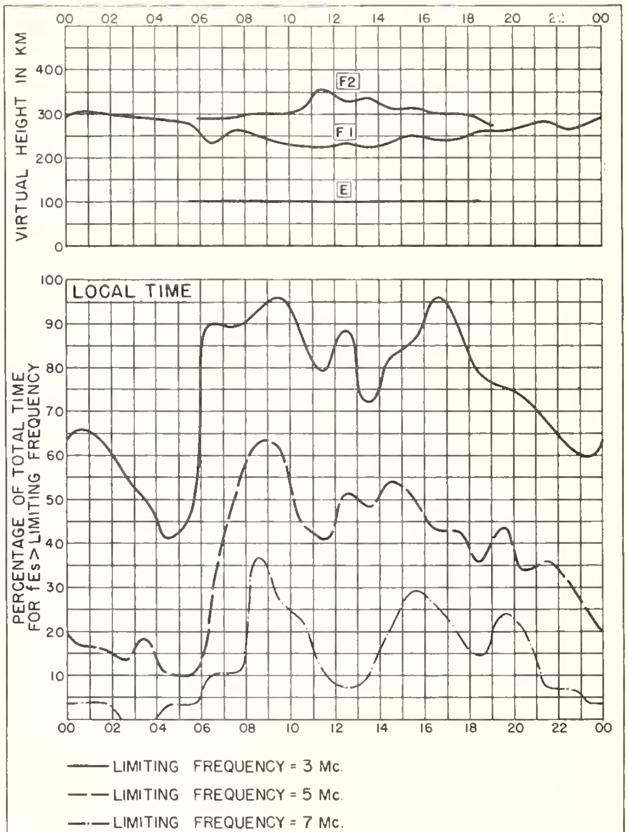



Fig. 30. WAKKANAI, JAPAN AUGUST 1950

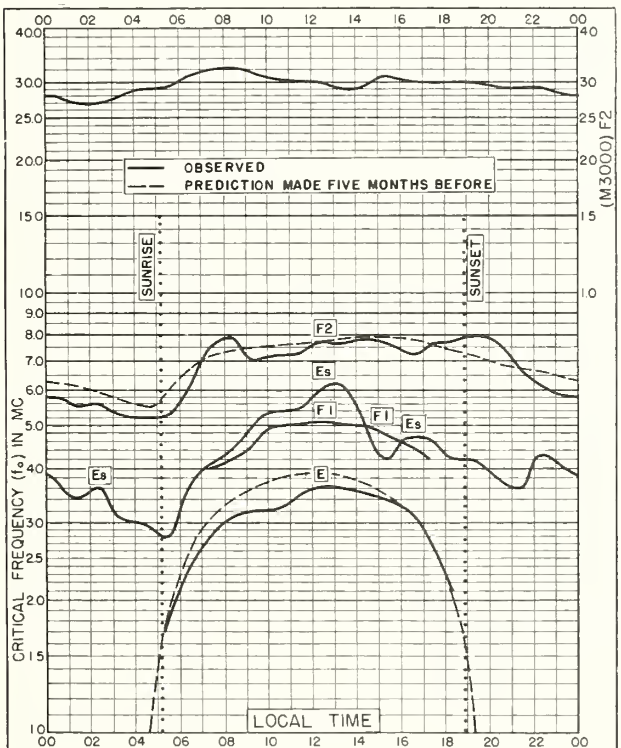



Fig. 31. AKITA, JAPAN
39.7°N, 140.1°E AUGUST 1950

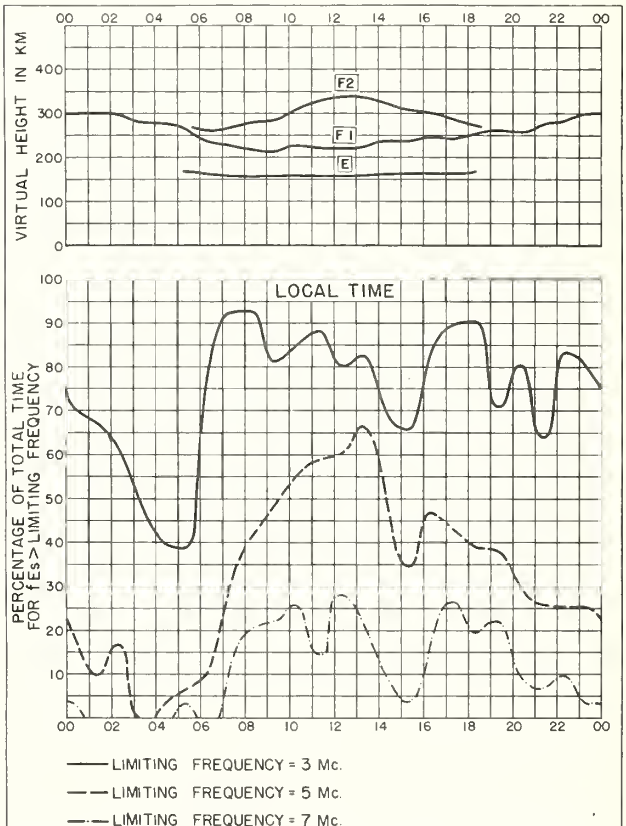



Fig. 32. AKITA, JAPAN AUGUST 1950

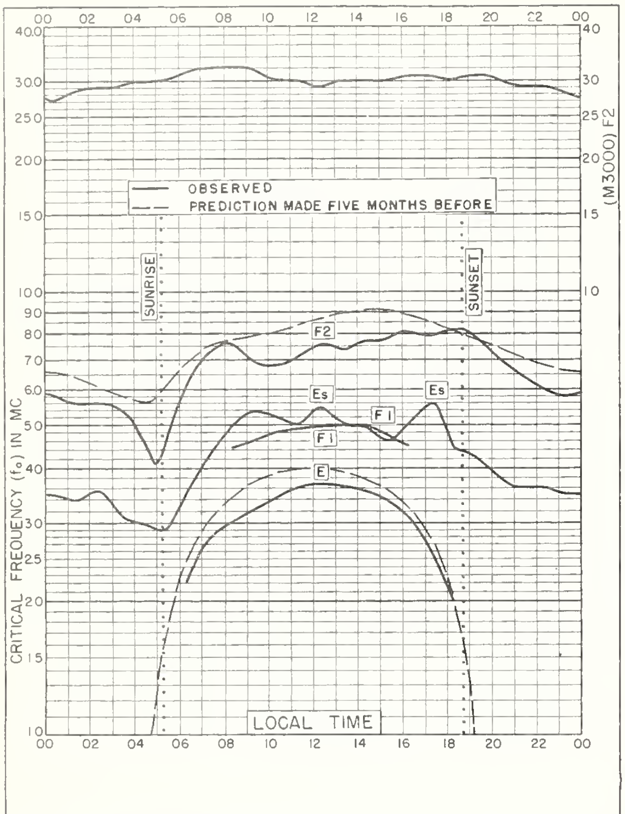



Fig. 33. TOKYO, JAPAN
35.7°N, 139.5°E AUGUST 1950

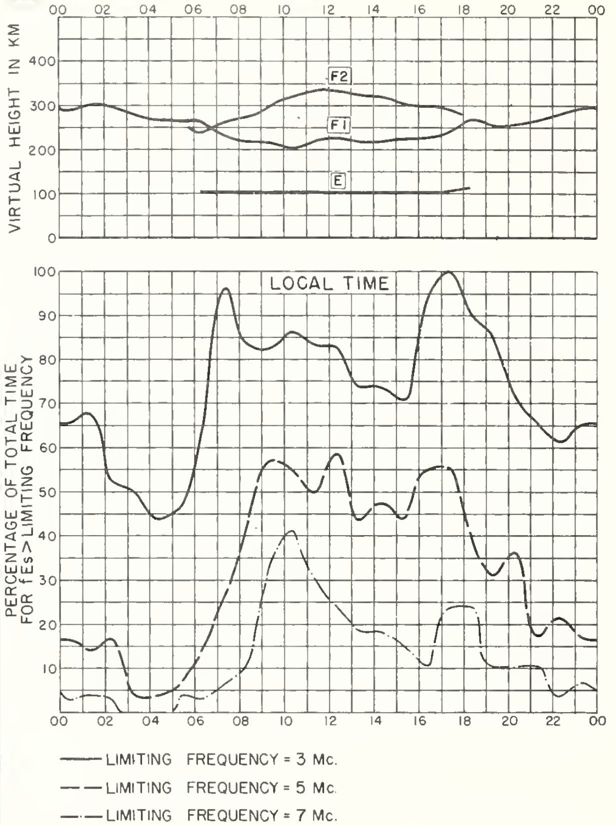



Fig. 34. TOKYO, JAPAN AUGUST 1950

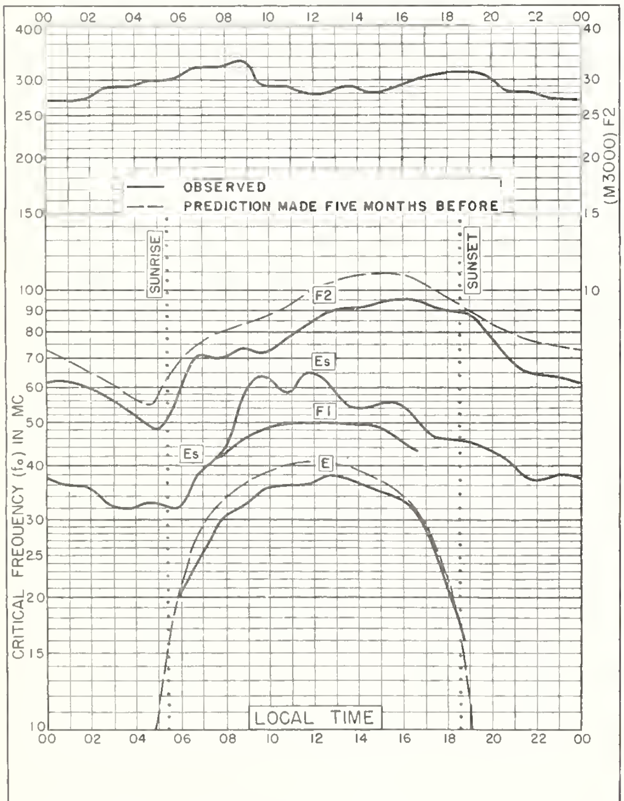



Fig. 35. YAMAGAWA, JAPAN
31.2°N, 130.6°E AUGUST 1950

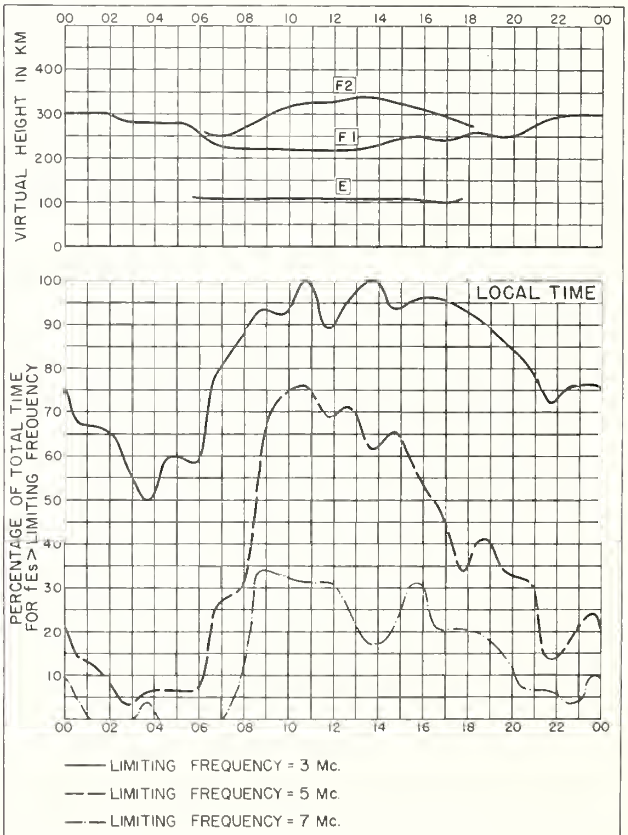



Fig. 36. YAMAGAWA, JAPAN AUGUST 1950

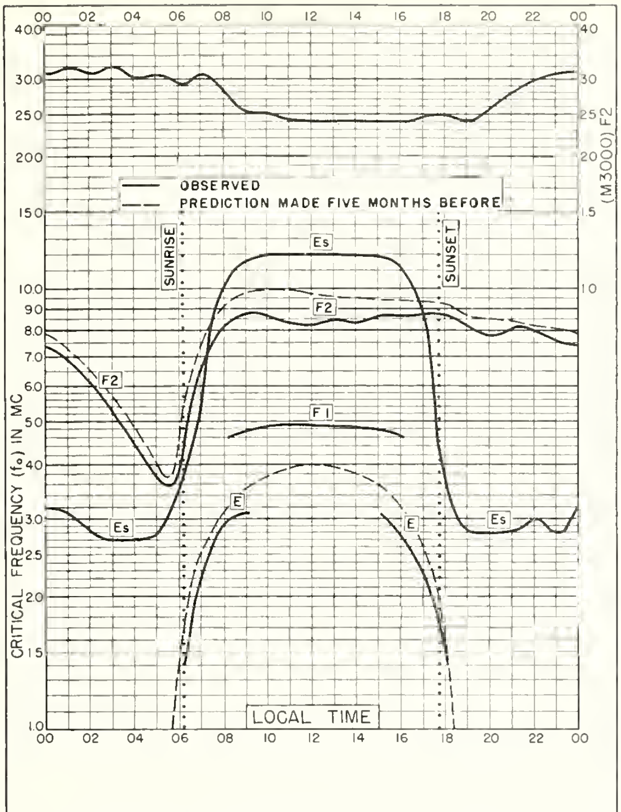



Fig. 37. HUANCAYO, PERU
12.0°S, 75.3°W AUGUST 1950

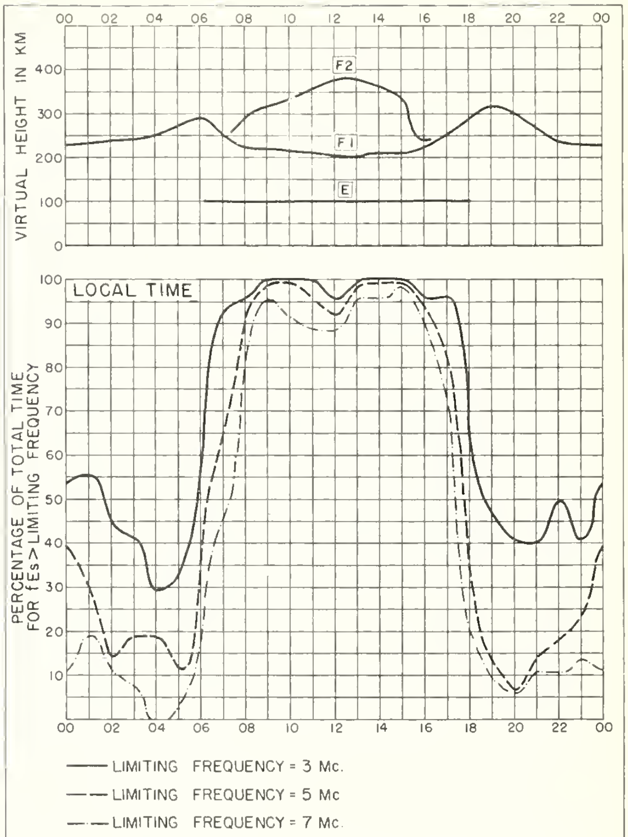



Fig. 38. HUANCAYO, PERU AUGUST 1950

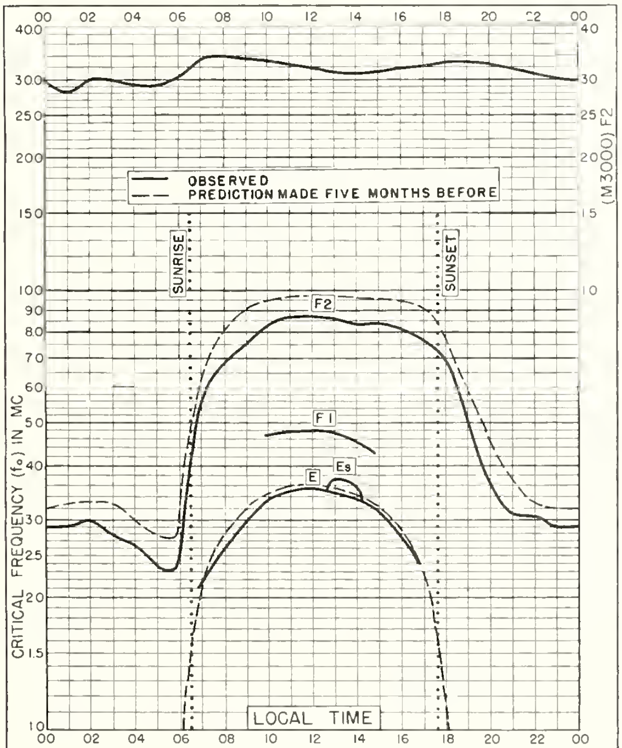



Fig. 39. JOHANNESBURG, U. OF S. AFRICA
26.2°S, 28.1°E AUGUST 1950

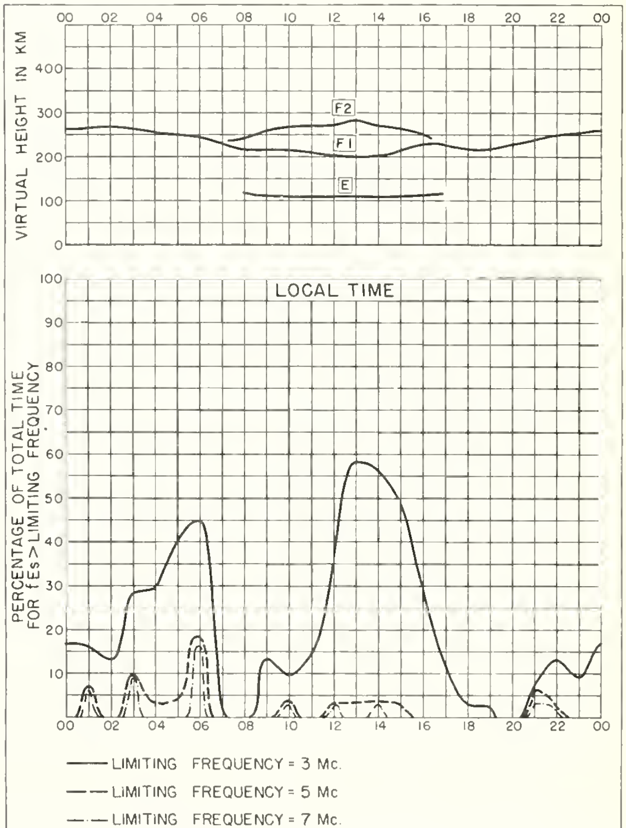



Fig. 40. JOHANNESBURG, U. OF S. AFRICA AUGUST 1950

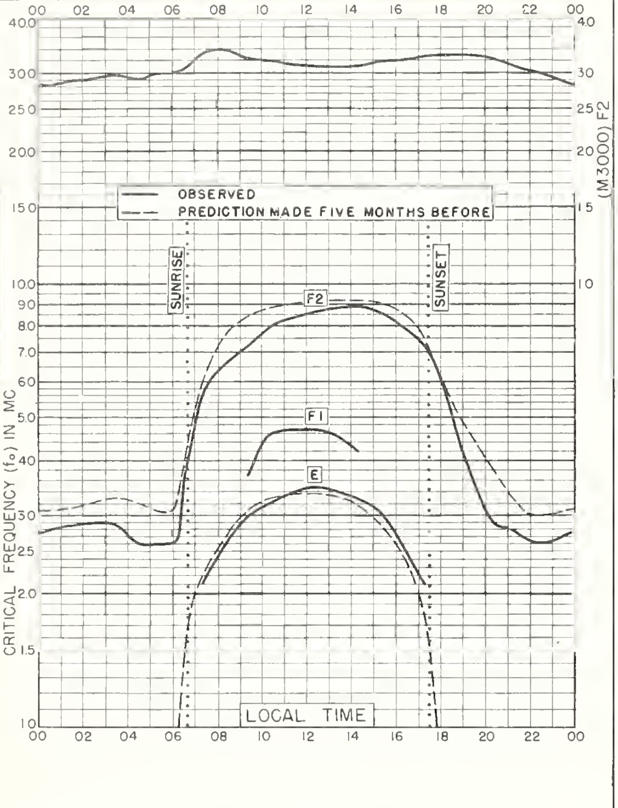



Fig. 41. CAPETOWN, U. OF S. AFRICA
34.2°S, 18.3°E AUGUST 1950

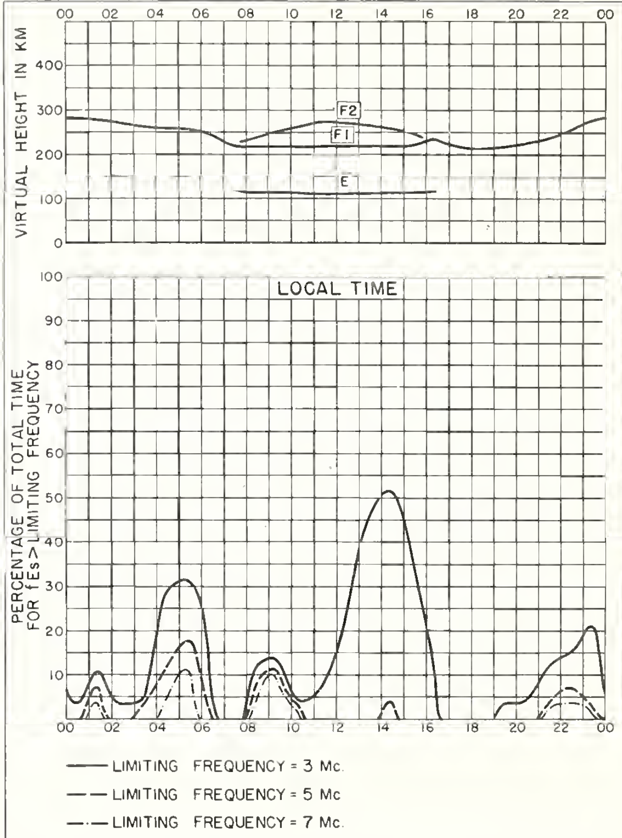



Fig. 42. CAPETOWN, U. OF S. AFRICA AUGUST 1950

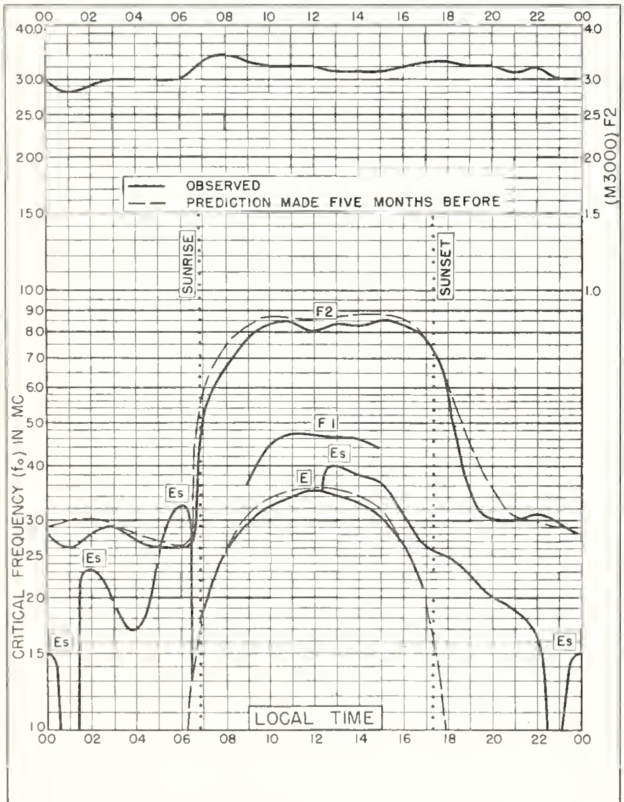



Fig. 43. JOHANNESBURG, U. OF S. AFRICA
26.2°S, 28.1°E JULY 1950

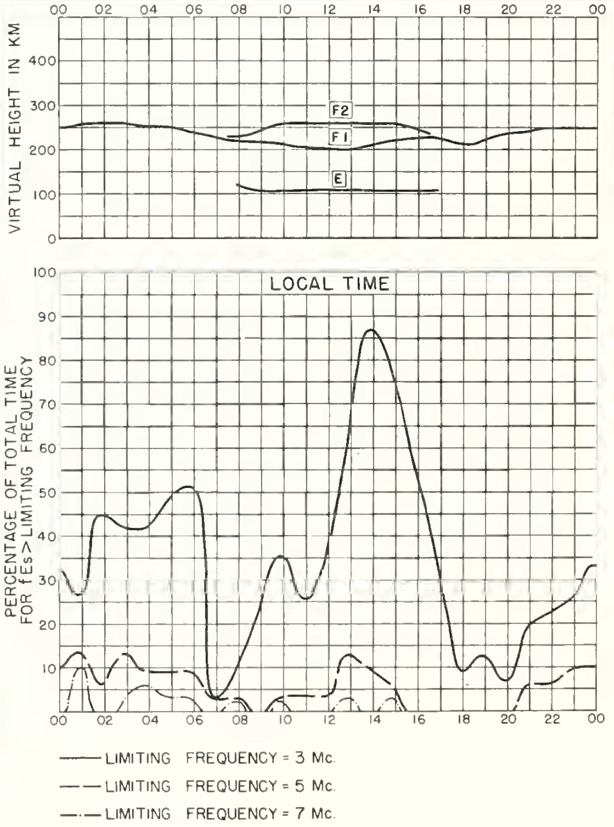



Fig. 44. JOHANNESBURG, U. OF S. AFRICA JULY 1950

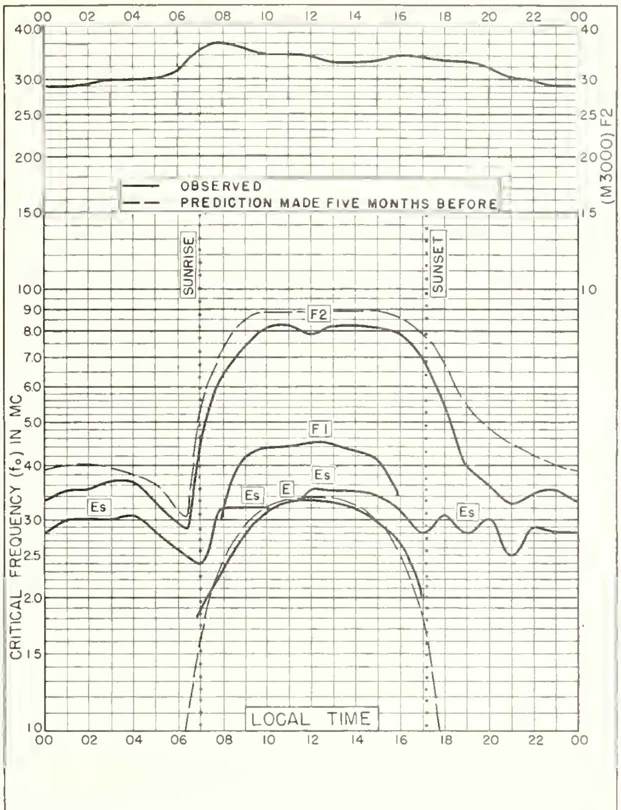



Fig. 45. WATHEROO, W. AUSTRALIA
30. 3°S, 115.9°E JULY 1950

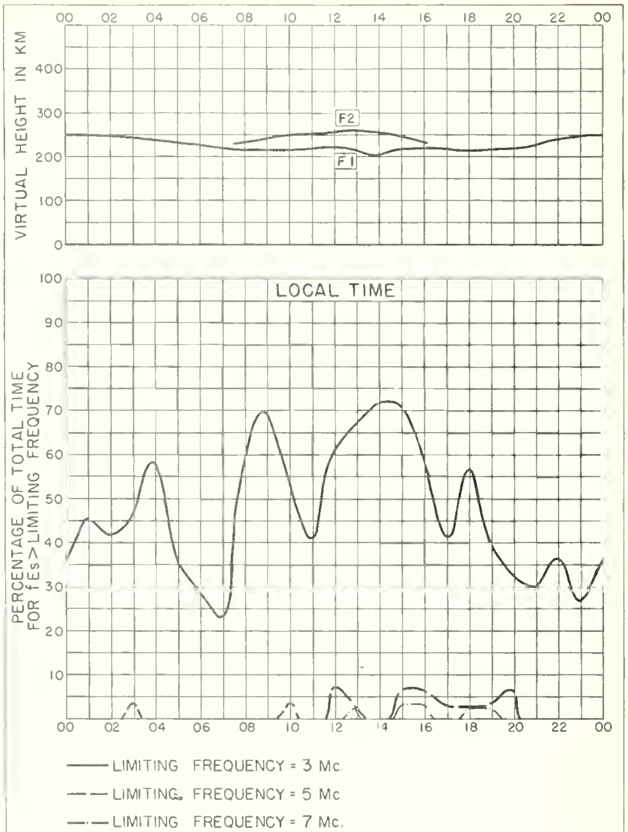



Fig. 46. WATHEROO, W. AUSTRALIA JULY 1950

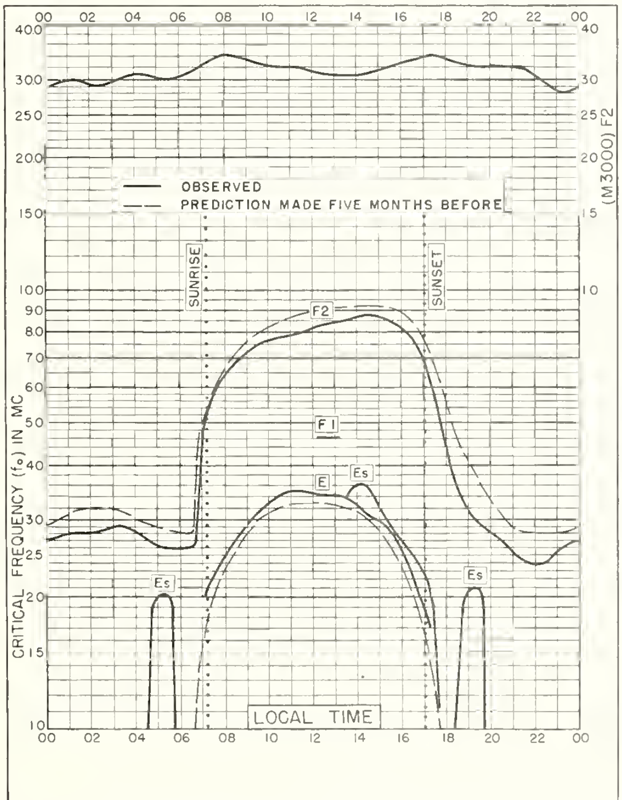



Fig. 47. CAPETOWN, U. OF S. AFRICA
34. 2°S, 18. 3°E JULY 1950

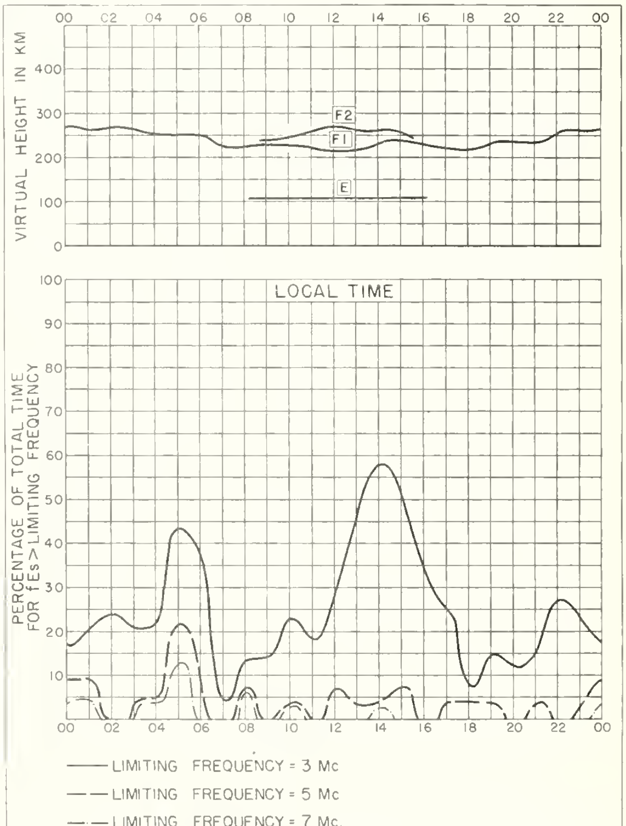
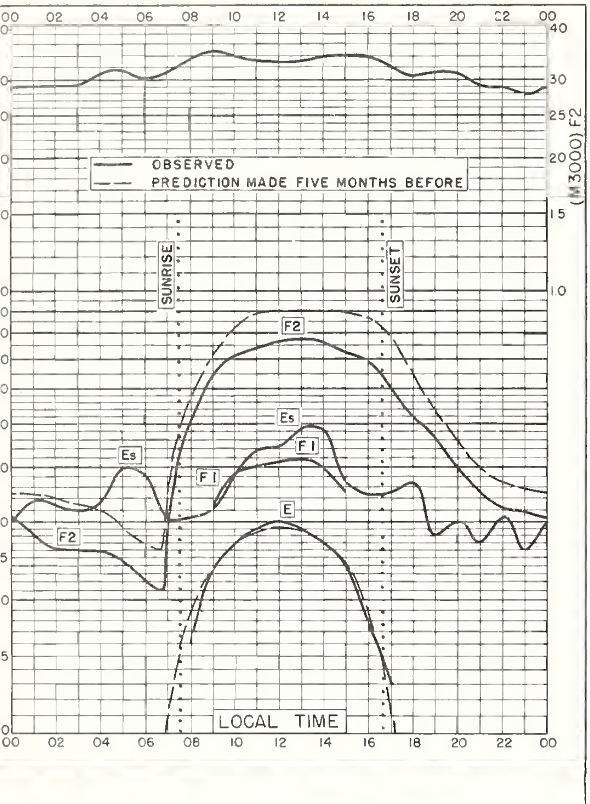



Fig. 48. CAPETOWN, U. OF S. AFRICA JULY 1950




ıg. 49. CHRISTCHURCH, N. Z.
43.5°S, 172.7°E JULY 1950

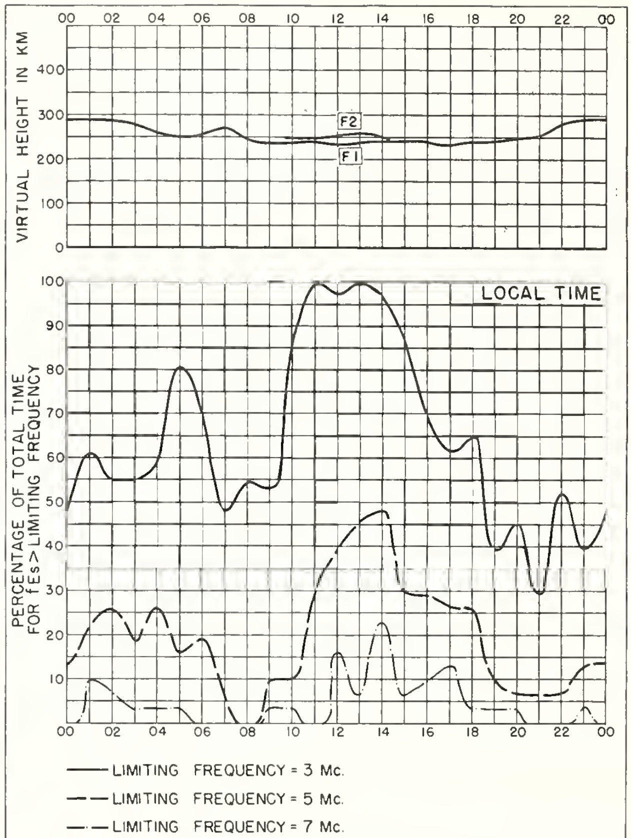
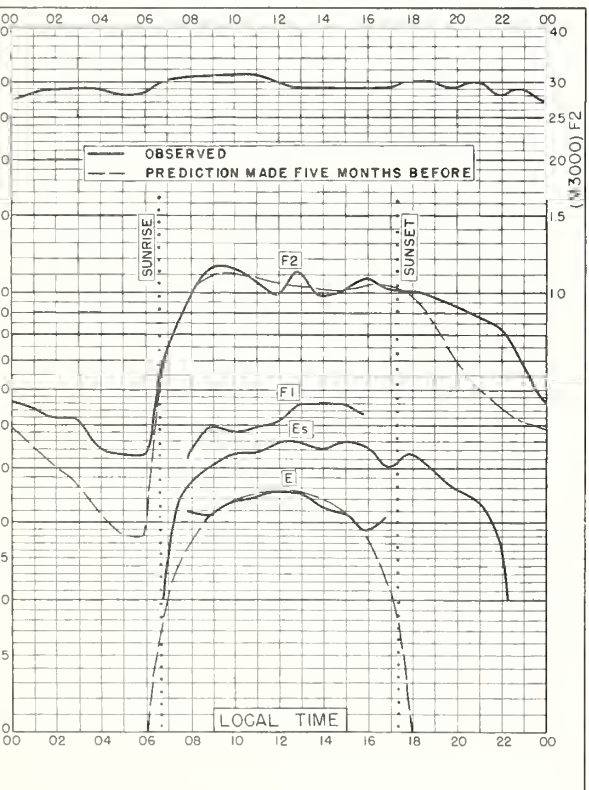



Fig. 50. CHRISTCHURCH, N. Z. JULY 1950




ig. 51. RAROTONGA I.
21. 3° S, 159. 8° W JUNE 1950

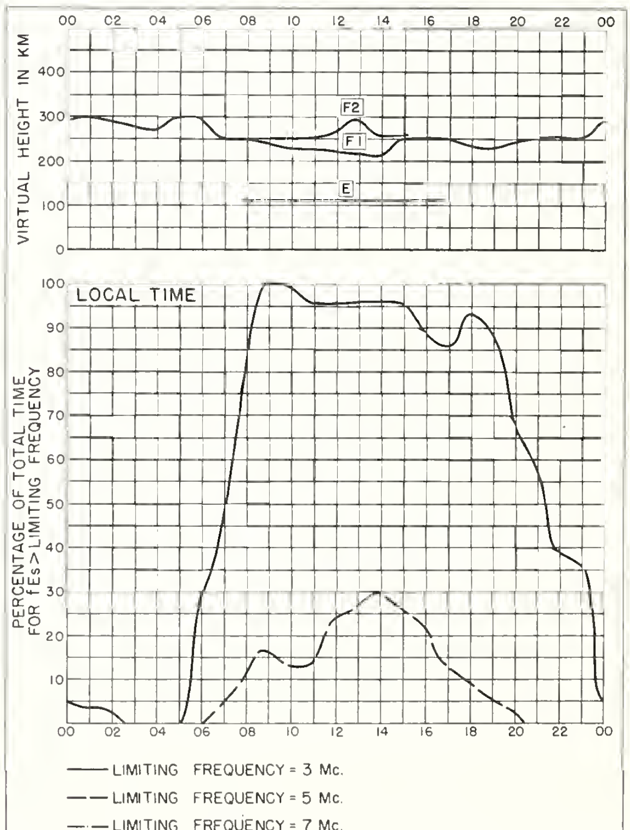



Fig. 52. RAROTONGA I. JUNE 1950

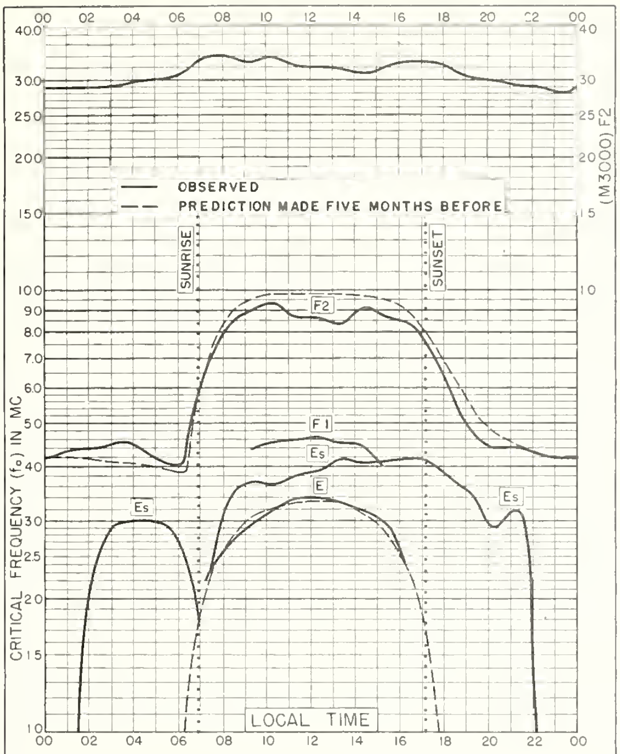



Fig. 53. BRISBANE, AUSTRALIA
27.5°S, 153.0°E JUNE 1950

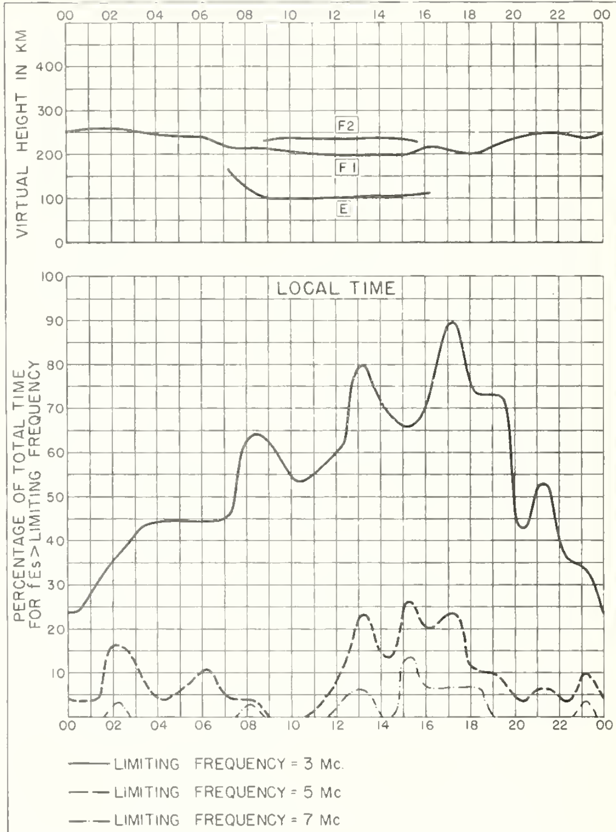



Fig. 54. BRISBANE, AUSTRALIA JUNE 1950

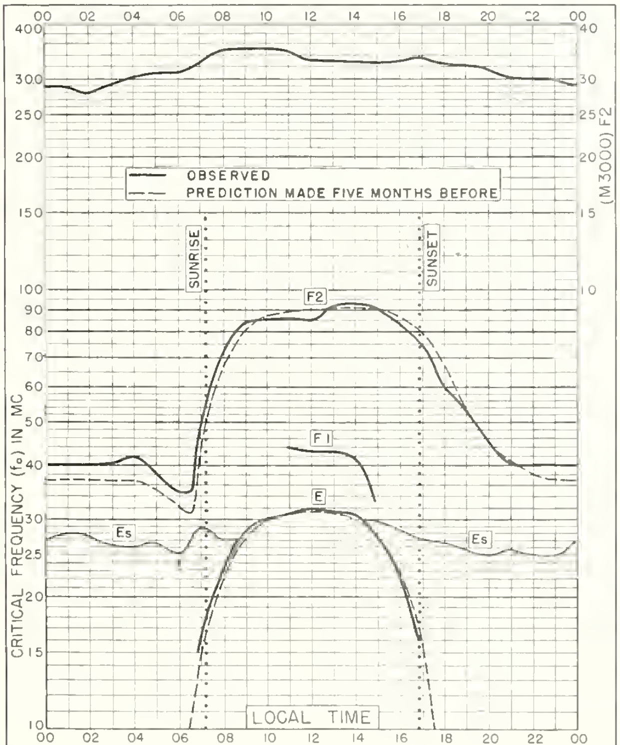



Fig. 55. CANBERRA, AUSTRALIA
35.3°S, 149.0°E JUNE 1950

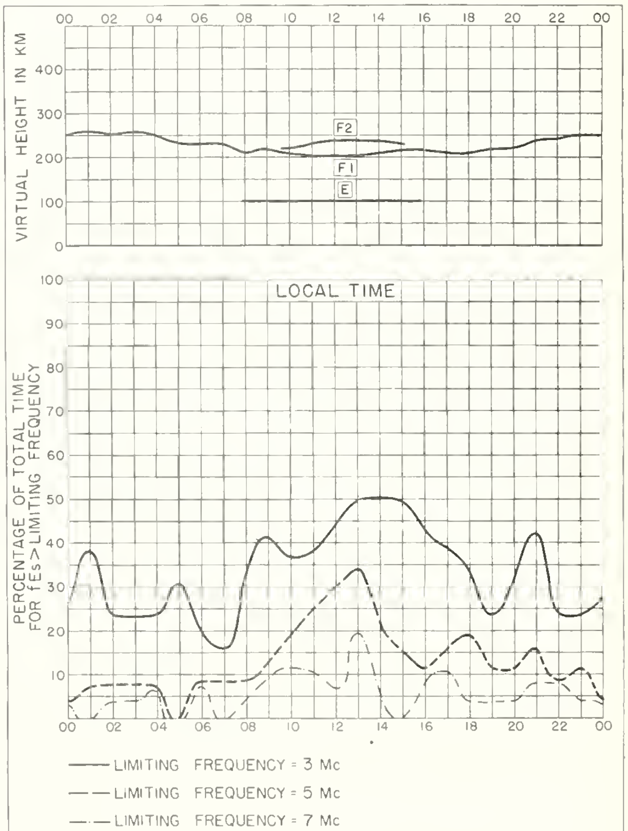



Fig. 56. CANBERRA, AUSTRALIA JUNE 1950

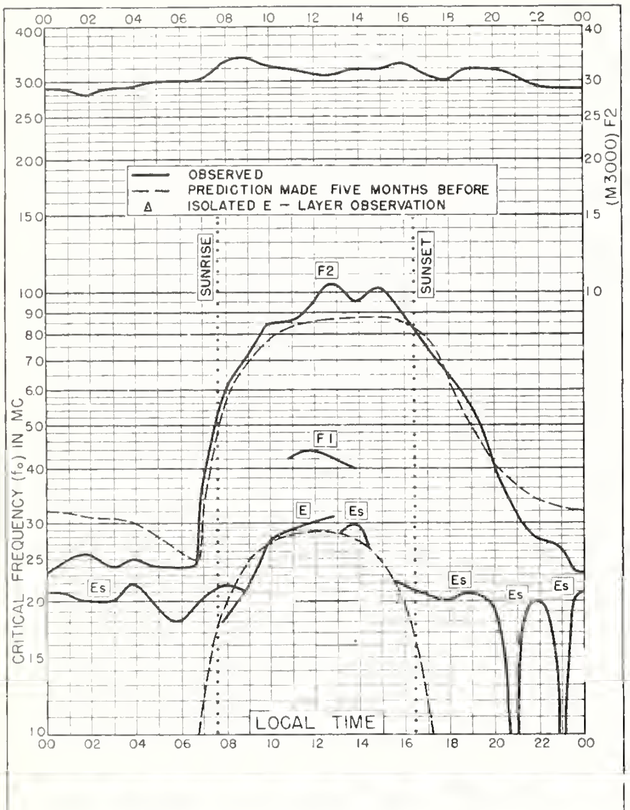



Fig. 57. HOBART, TASMANIA
42.8°S, 147.4°E JUNE 1950

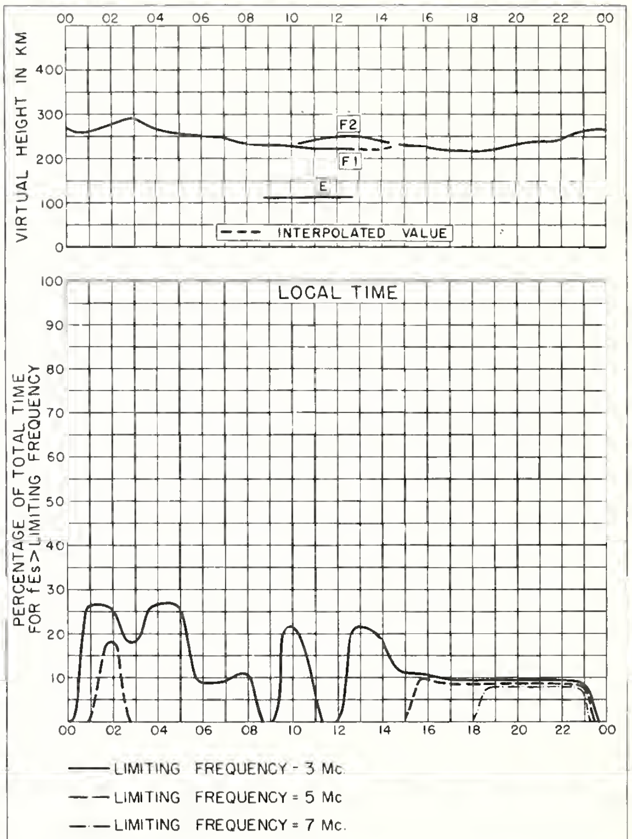



Fig. 58. HOBART, TASMANIA JUNE 1950

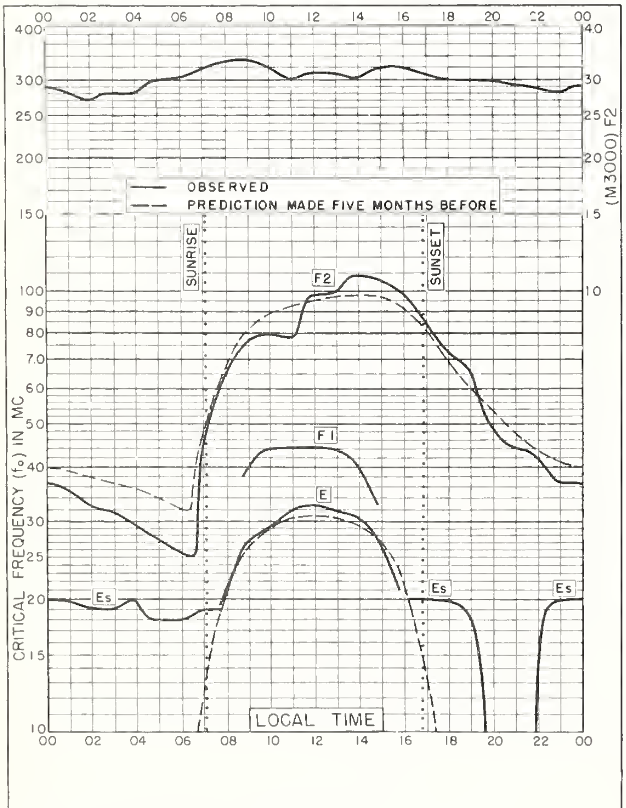



Fig. 59. HOBART, TASMANIA
42.8°S, 147.4°E MAY 1950

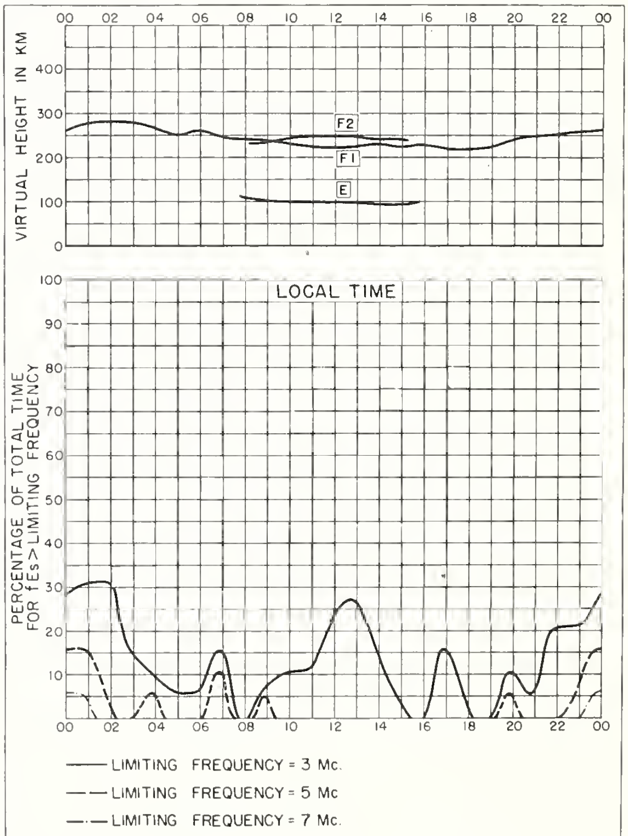



Fig. 60. HOBART, TASMANIA MAY 1950

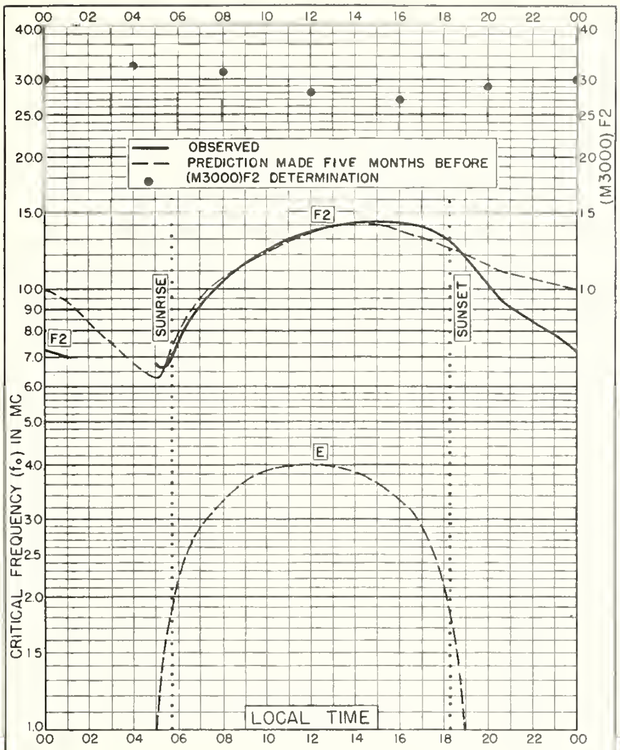



Fig. 61. DELHI, INDIA
28.6°N, 77.1°E APRIL 1950

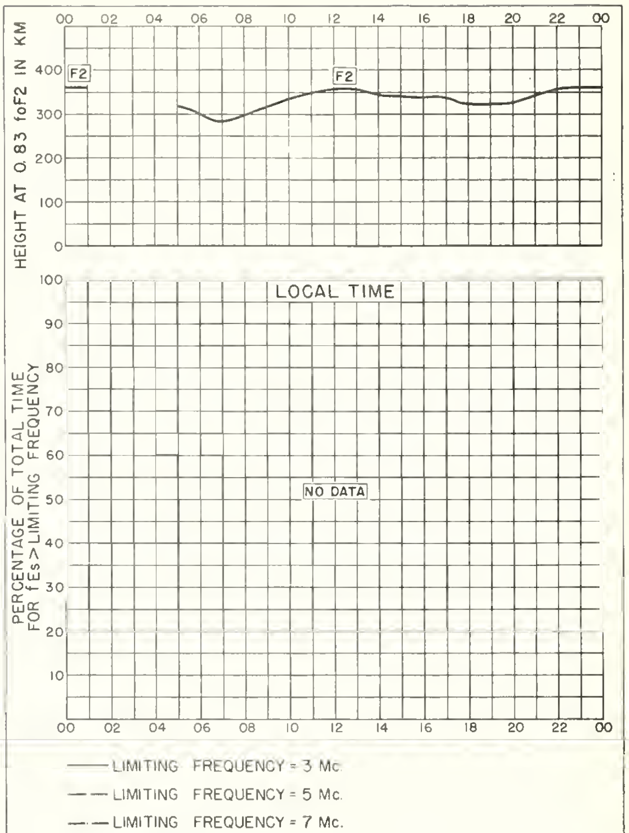



Fig. 62. DELHI, INDIA APRIL 1950

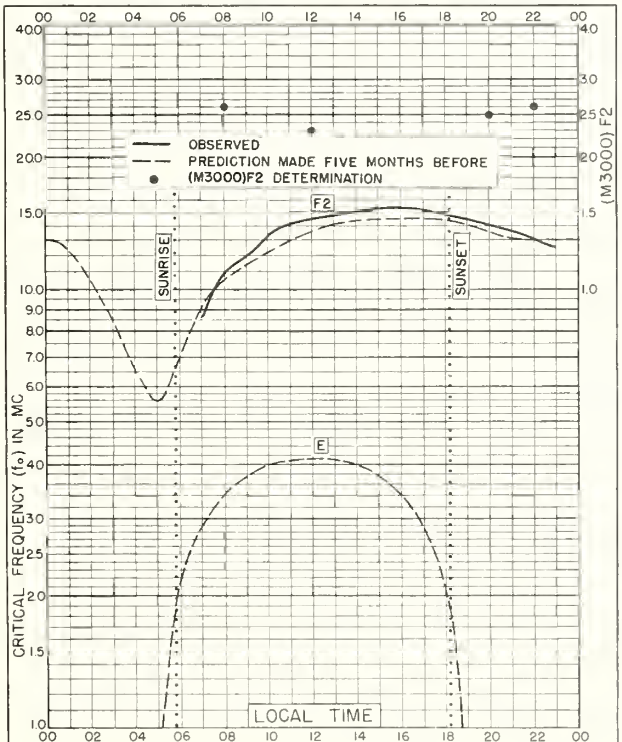



Fig. 63. BOMBAY, INDIA
19.0°N, 73.0°E APRIL 1950

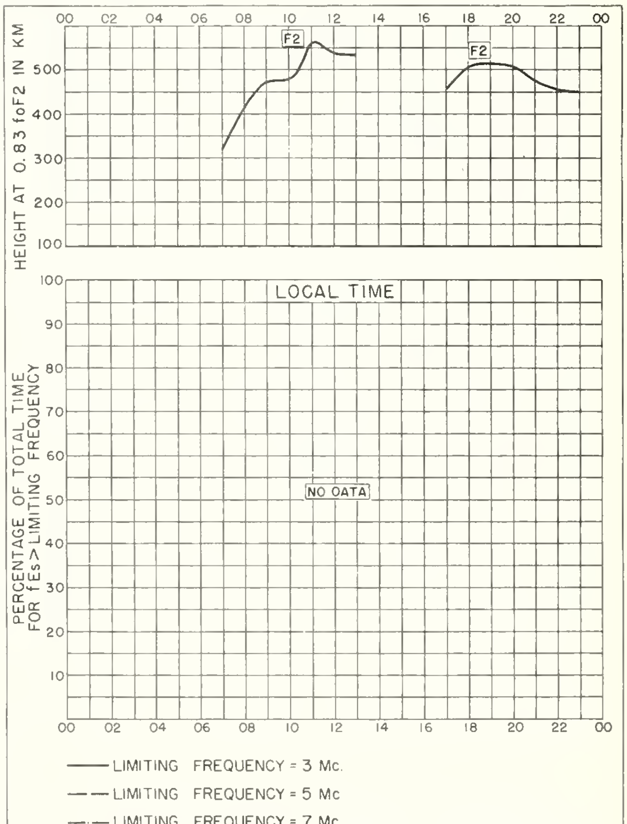



Fig. 64. BOMBAY, INDIA APRIL 1950

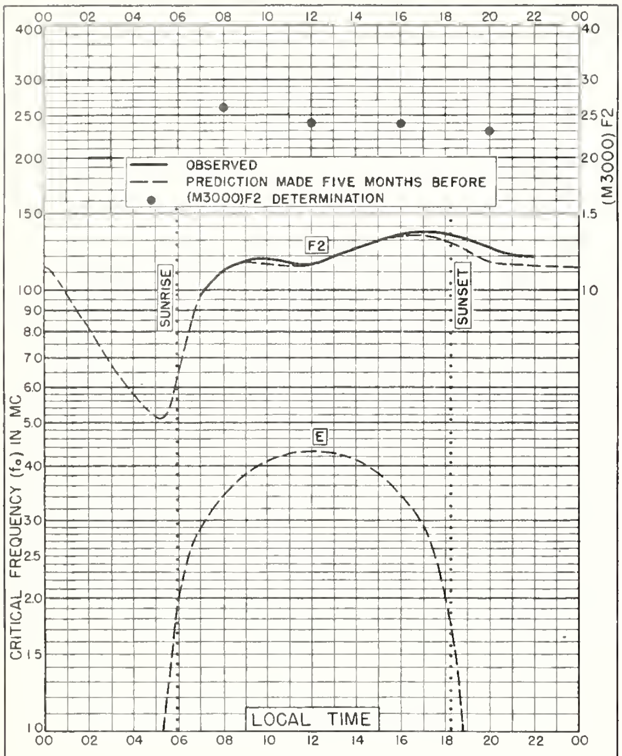



Fig. 65. MADRAS, INDIA
13.0°N, 80.2°E APRIL 1950

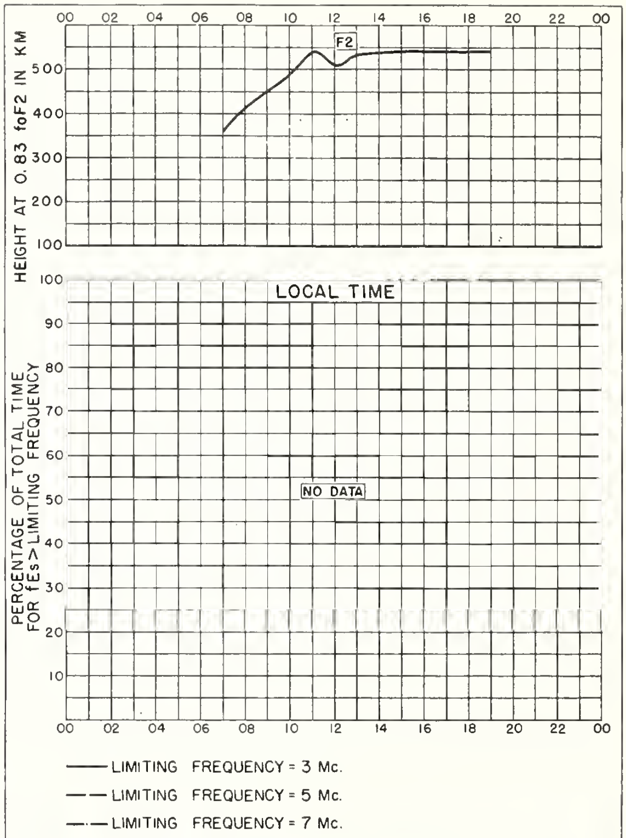



Fig. 66. MADRAS, INDIA APRIL 1950

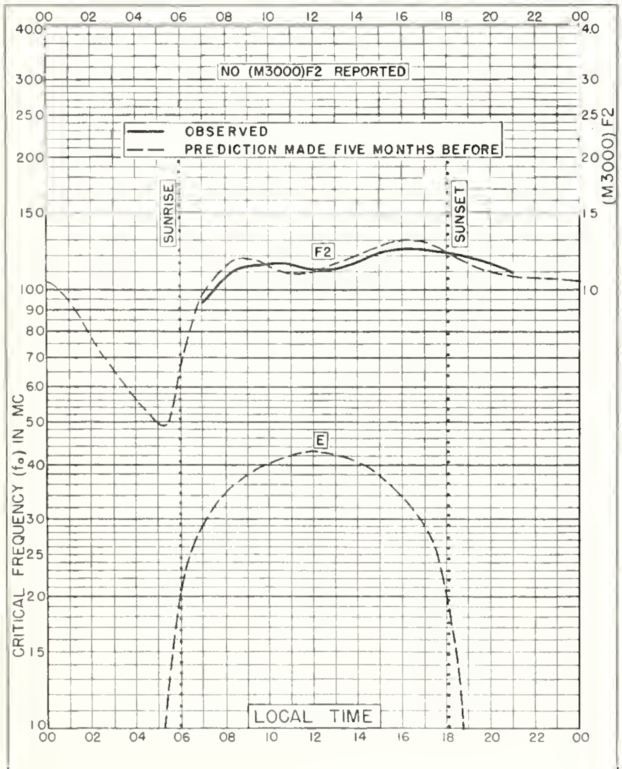



Fig. 67. TIRUCHY, INDIA
10.8°N, 78.8°E APRIL 1950

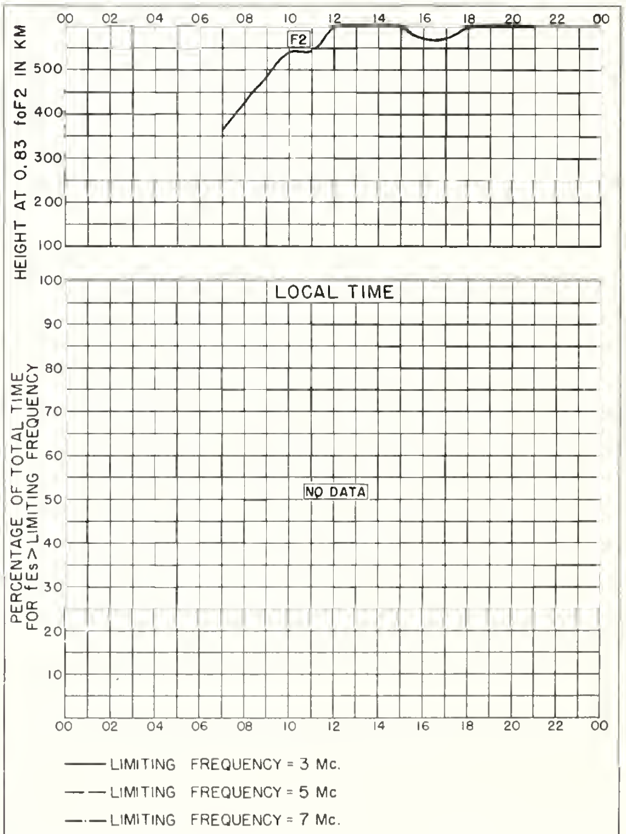



Fig. 68. TIRUCHY, INDIA APRIL 1950

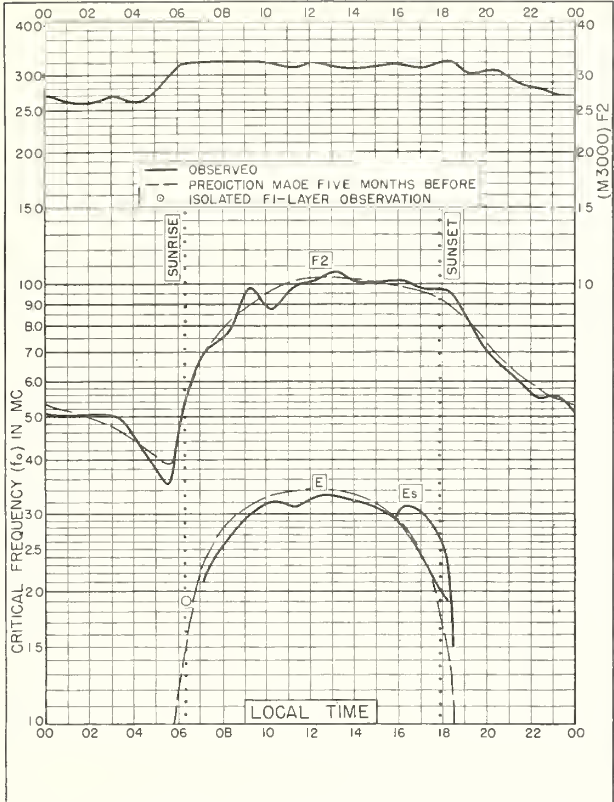



Fig. 69. DOMONT, FRANCE
49.0°N, 2.3°E MARCH 1950

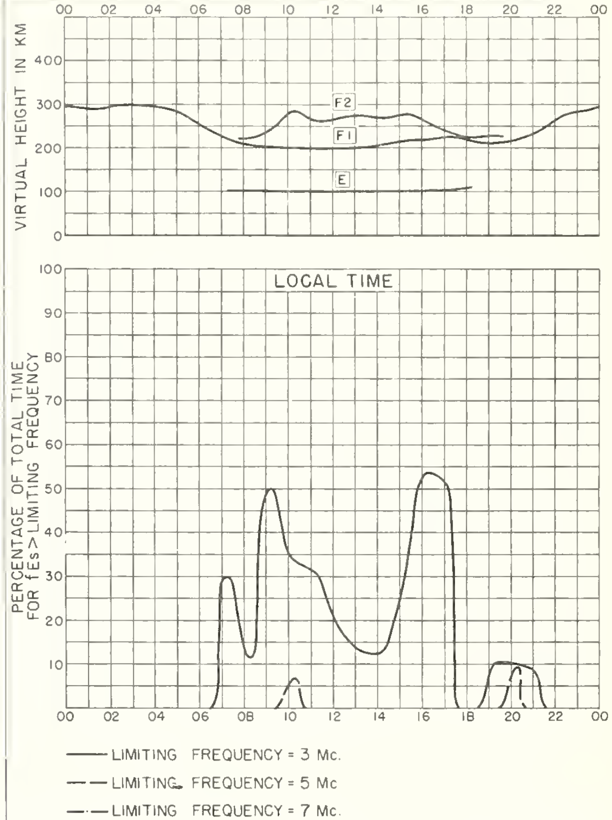



Fig. 70. DOMONT, FRANCE MARCH 1950

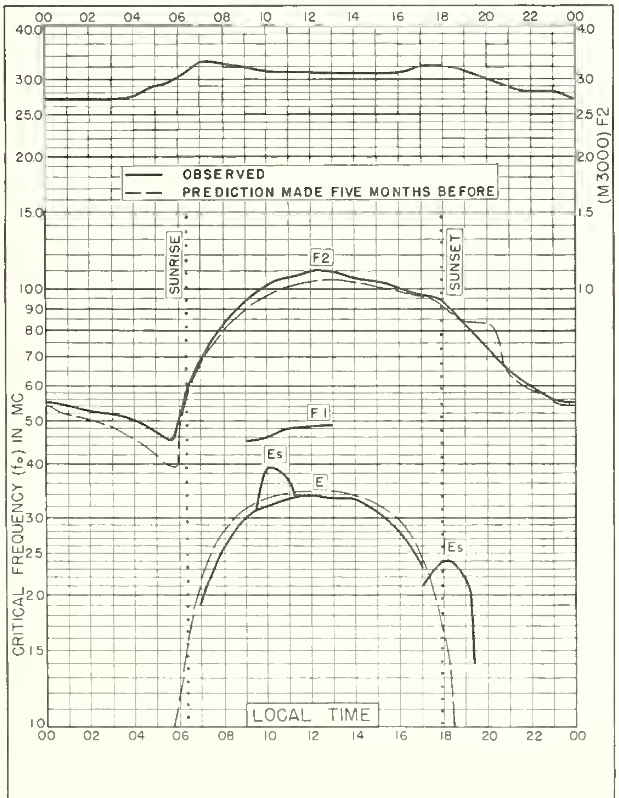



Fig. 71. FRIBOURG, GERMANY
48.1°N, 7.8°E MARCH 1950

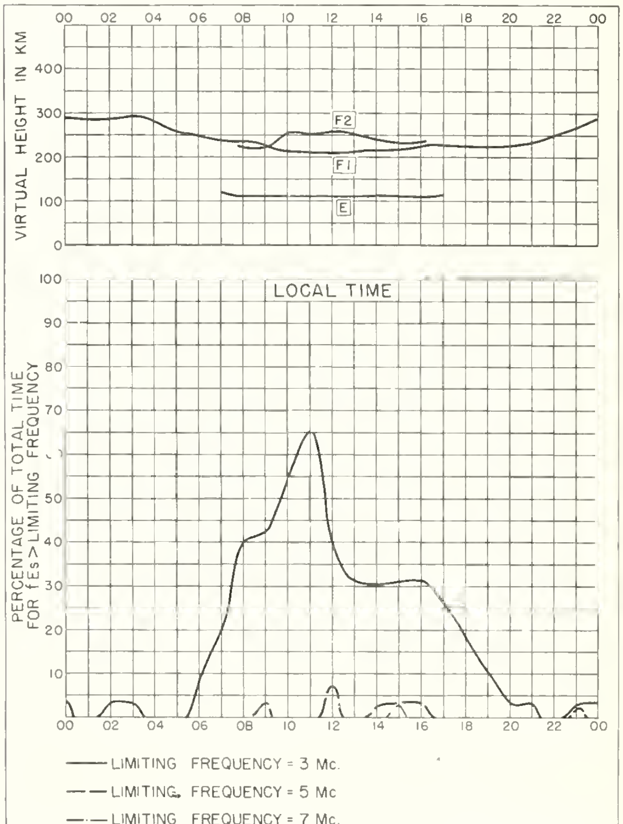



Fig. 72. FRIBOURG, GERMANY MARCH 1950

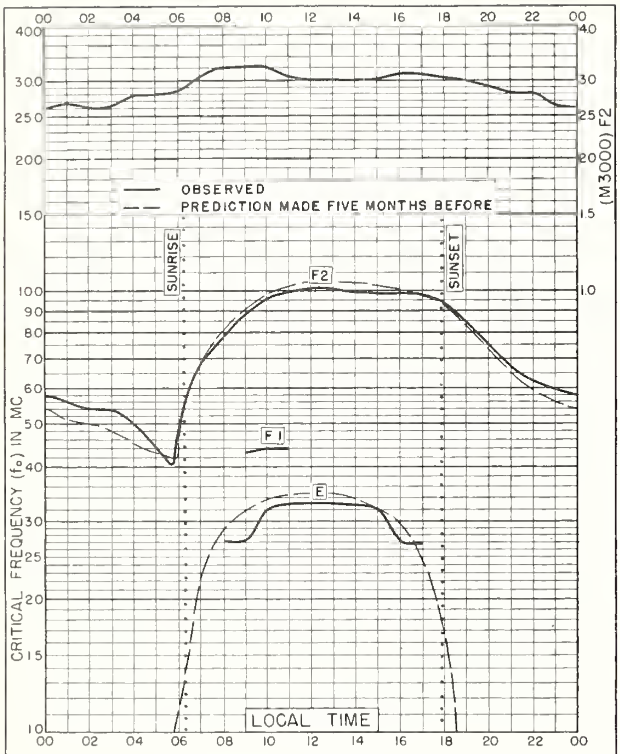



Fig. 73. POITIERS, FRANCE
46.6°N, 0.3°E MARCH 1950

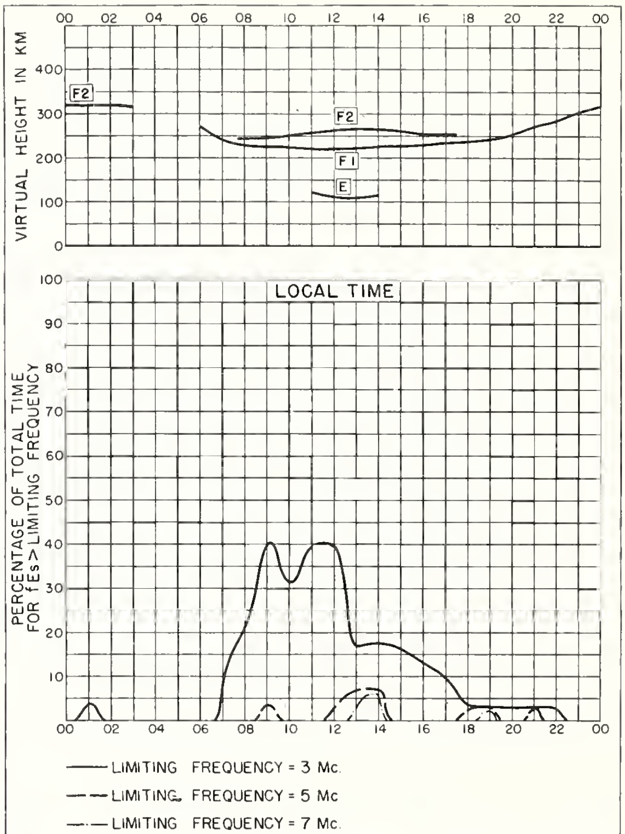



Fig. 74. POITIERS, FRANCE MARCH 1950

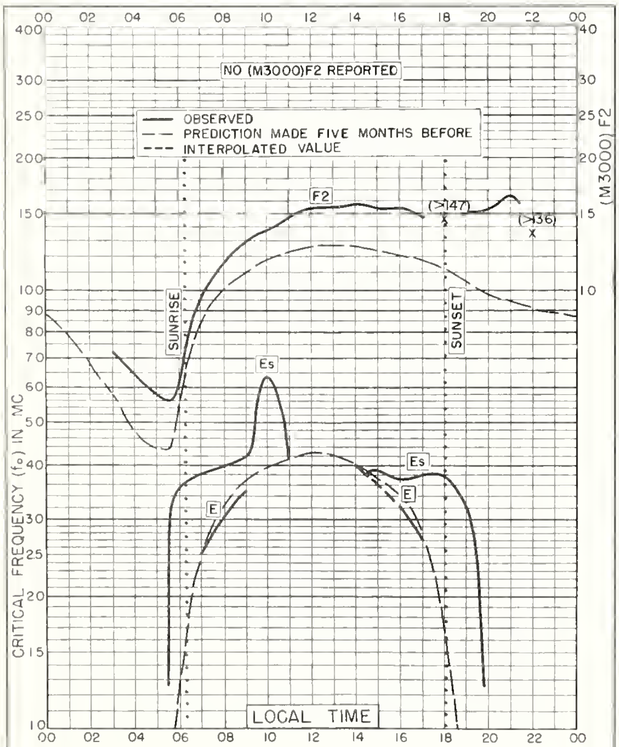



Fig. 75. DAKAR, FRENCH W. AFRICA
14.6°N, 17.4°W MARCH 1950

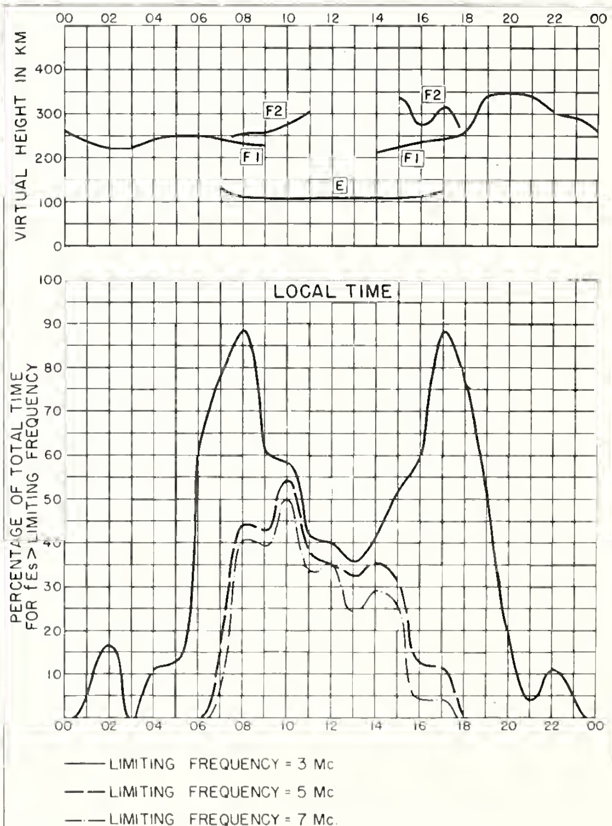



Fig. 76. DAKAR, FRENCH W. AFRICA MARCH 1950

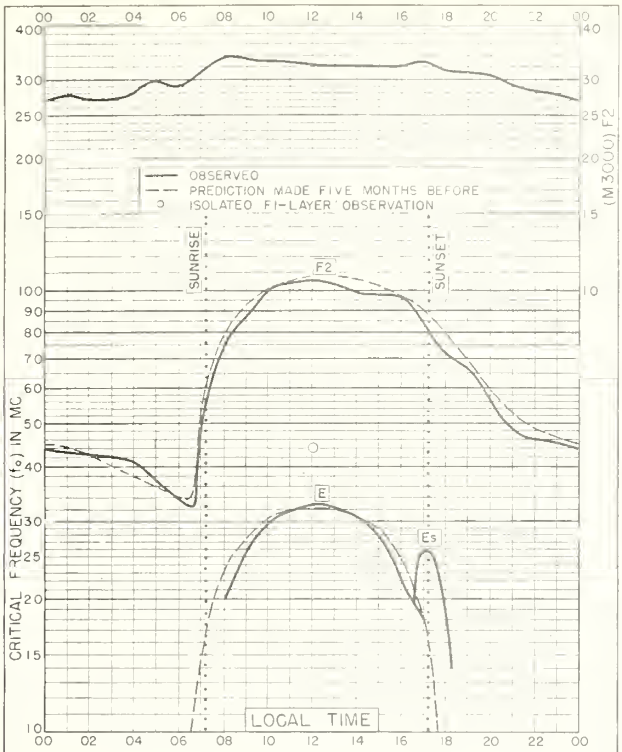



Fig. 77. FRIBOURG, GERMANY
48.1°N, 7.8°E FEBRUARY 1950

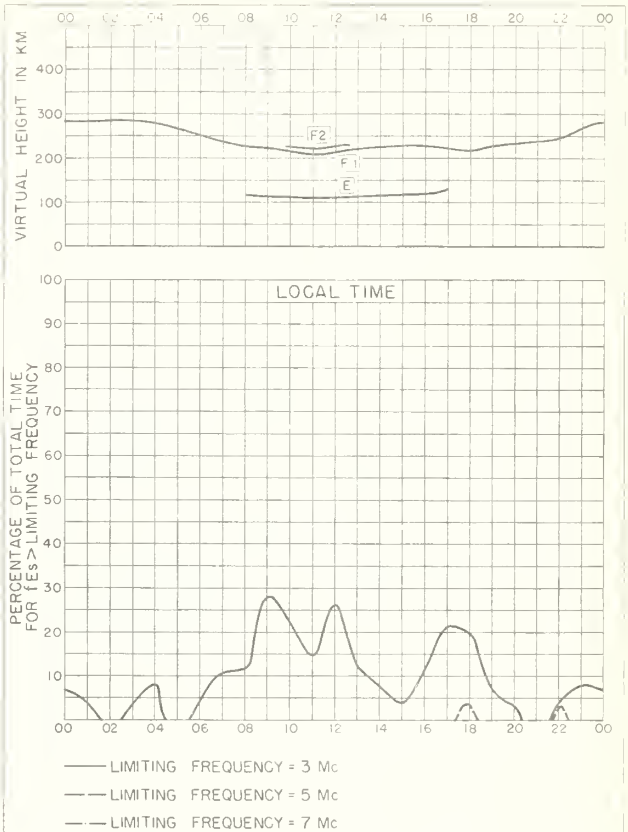



Fig. 78. FRIBOURG, GERMANY FEBRUARY 1950

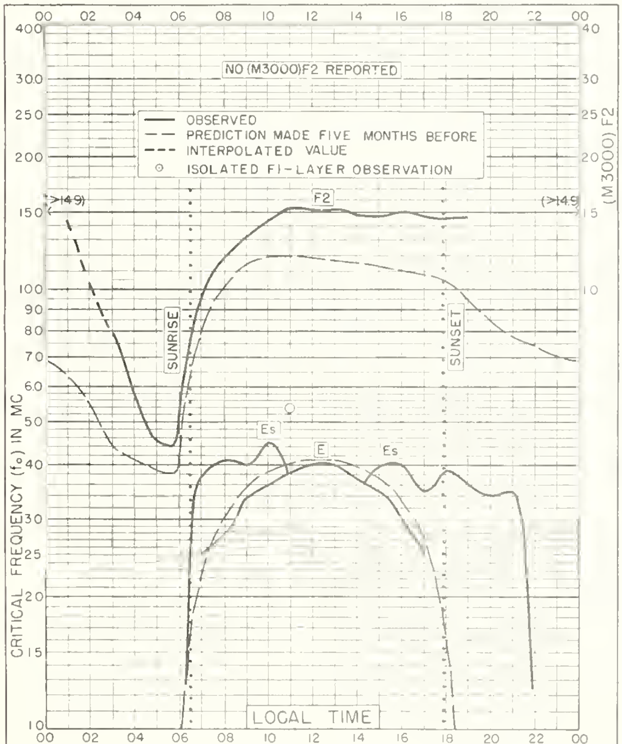



Fig. 79. DAKAR, FRENCH W. AFRICA
14.6°N, 17.4°W FEBRUARY 1950

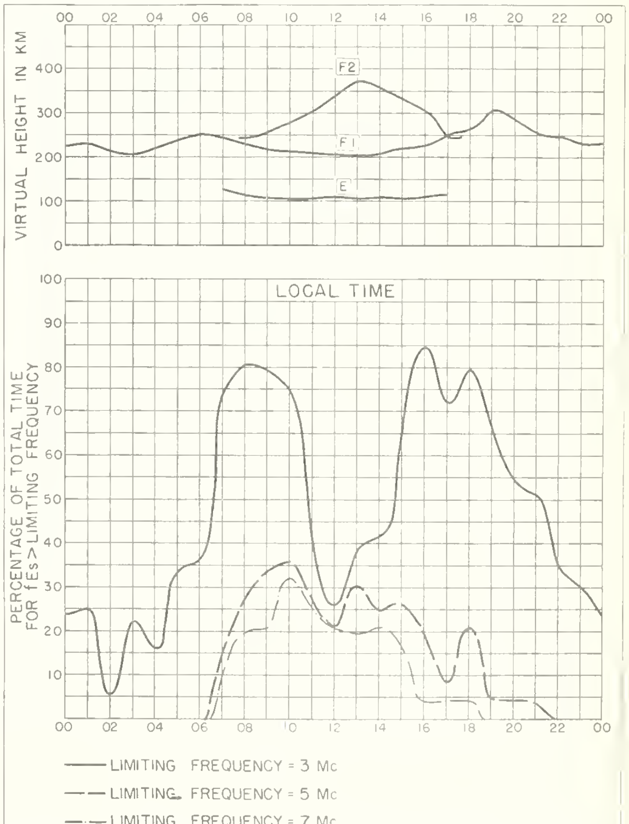



Fig. 80. DAKAR, FRENCH W. AFRICA FEBRUARY 1950

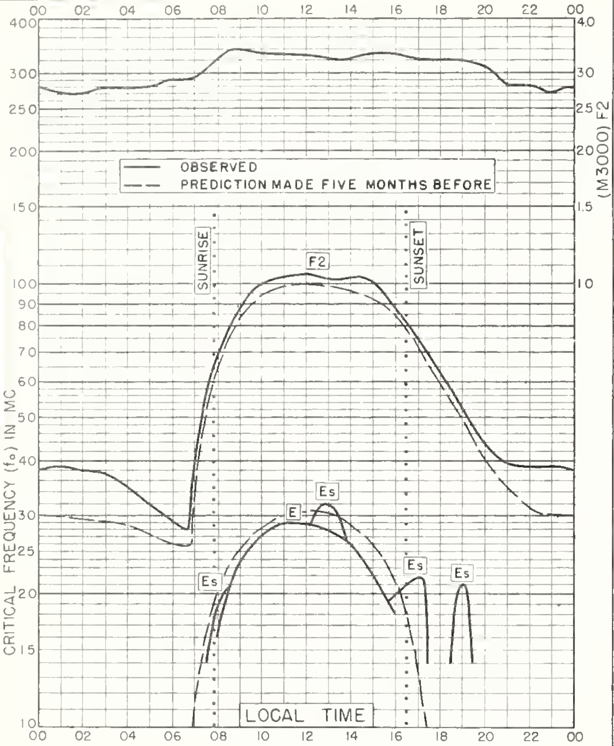



Fig 81. FRIBOURG, GERMANY
48.1°N, 7.8°E JANUARY 1950

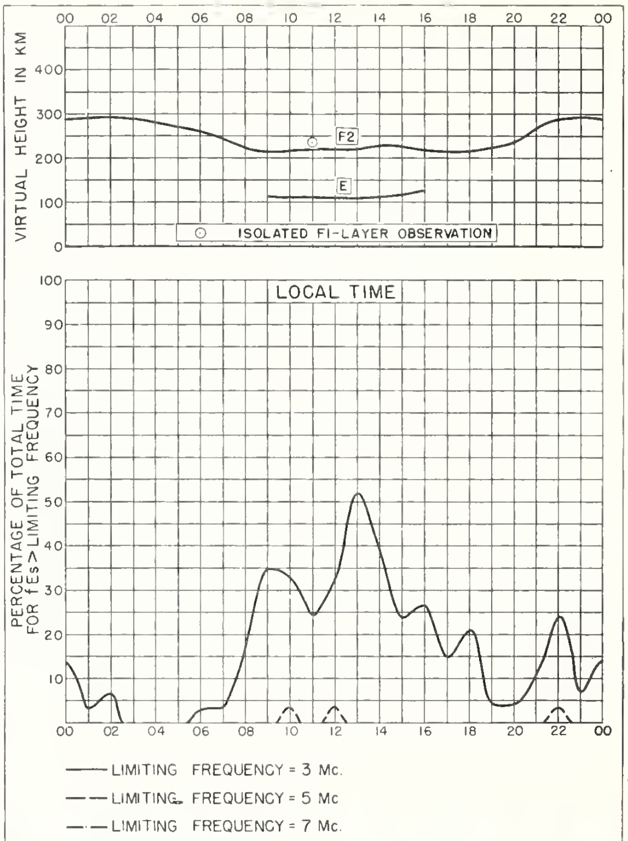



Fig. 82. FRIBOURG, GERMANY JANUARY 1950

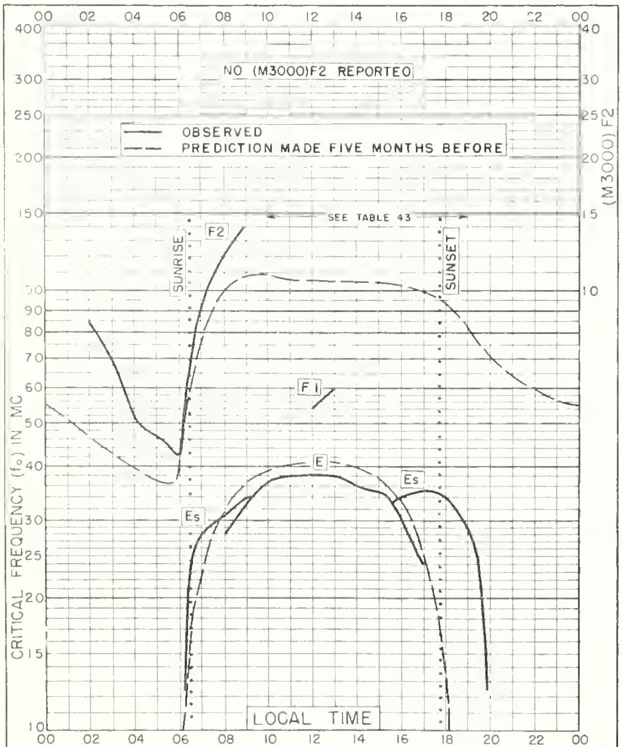



Fig. 83. DAKAR, FRENCH W. AFRICA
14.6°N, 17.4°W JANUARY 1950

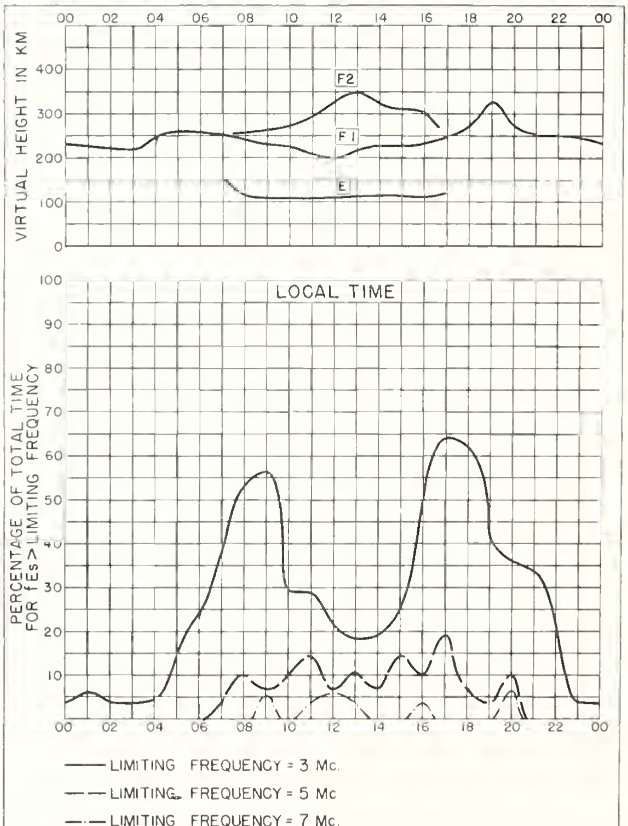



Fig. 84. DAKAR, FRENCH W. AFRICA JANUARY 1950

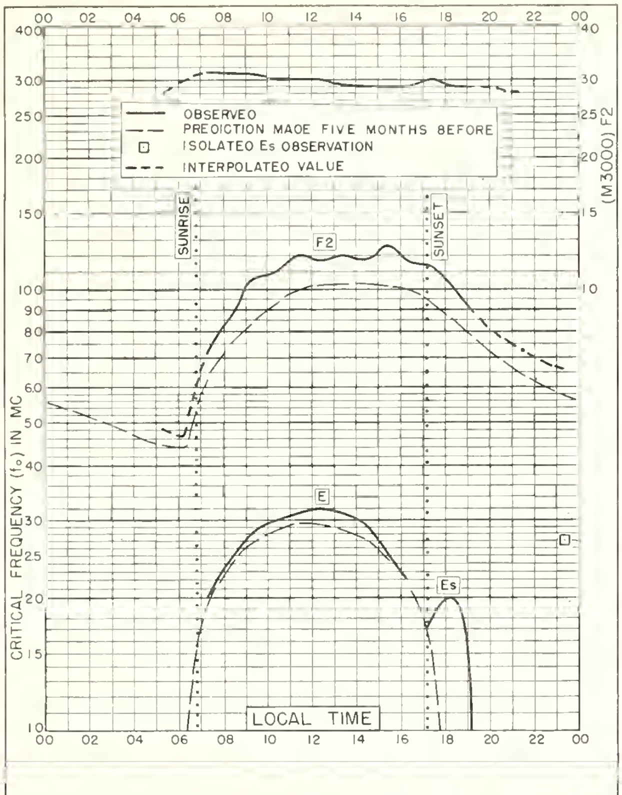



Fig. 85. CAMPBELL I.
52.5°S, 169.2°E APRIL 1949

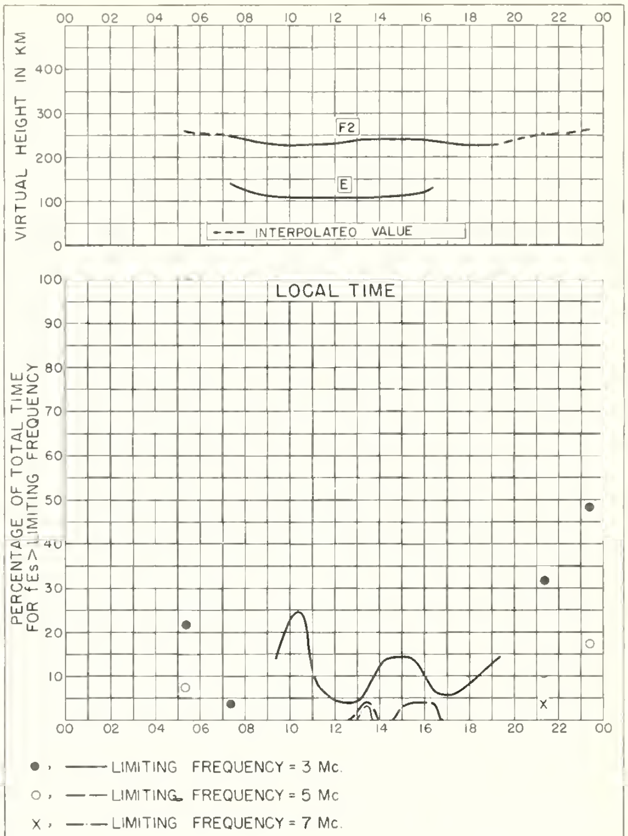



Fig. 86. CAMPBELL I. APRIL 1949

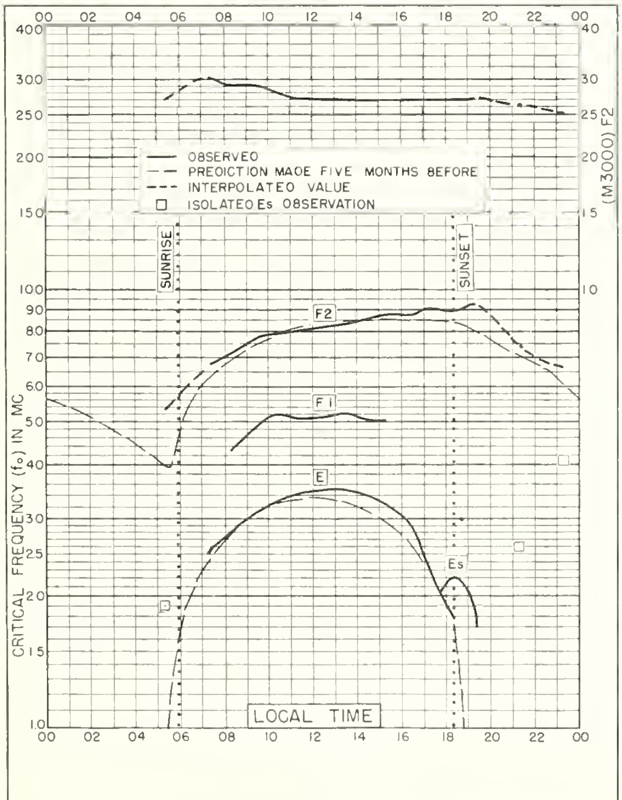



Fig. 87. CAMPBELL I.
52.5°S, 169.2°E MARCH 1949

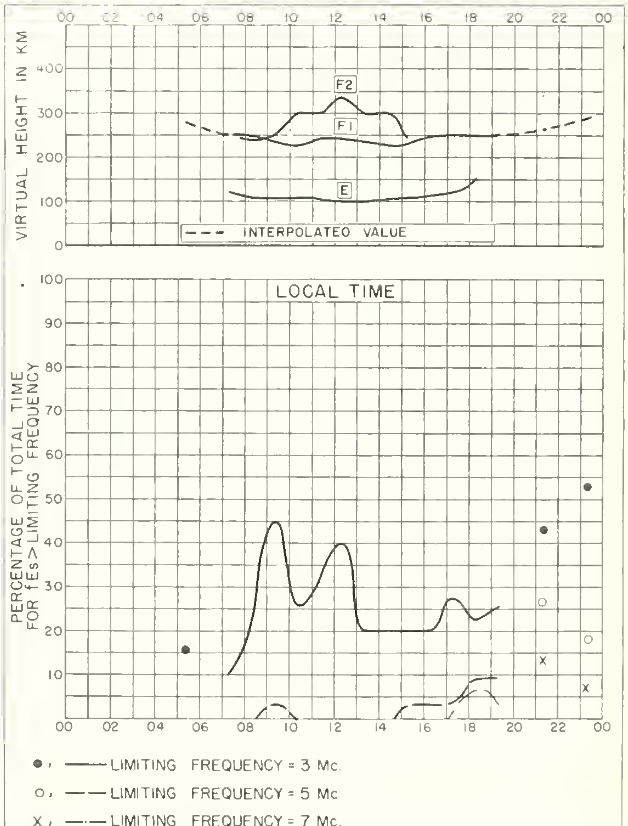



Fig. 88. CAMPBELL I. MARCH 1949

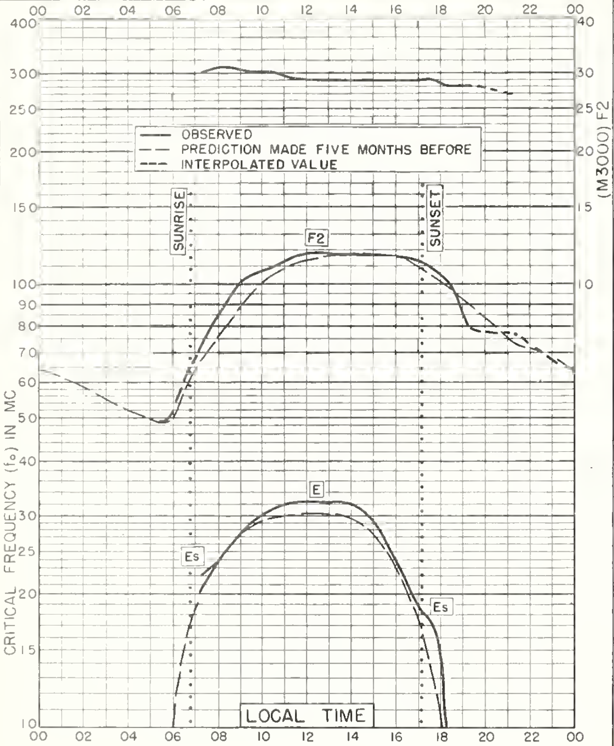



Fig. 89. CAMPBELL I.
52.5°S, 169.2°E APRIL 1948

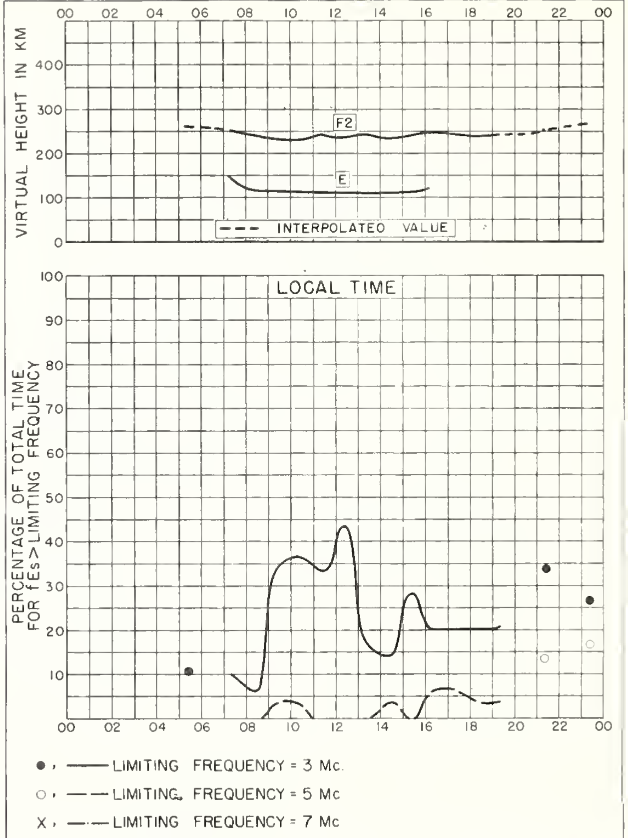



Fig. 90. CAMPBELL I. APRIL 1948

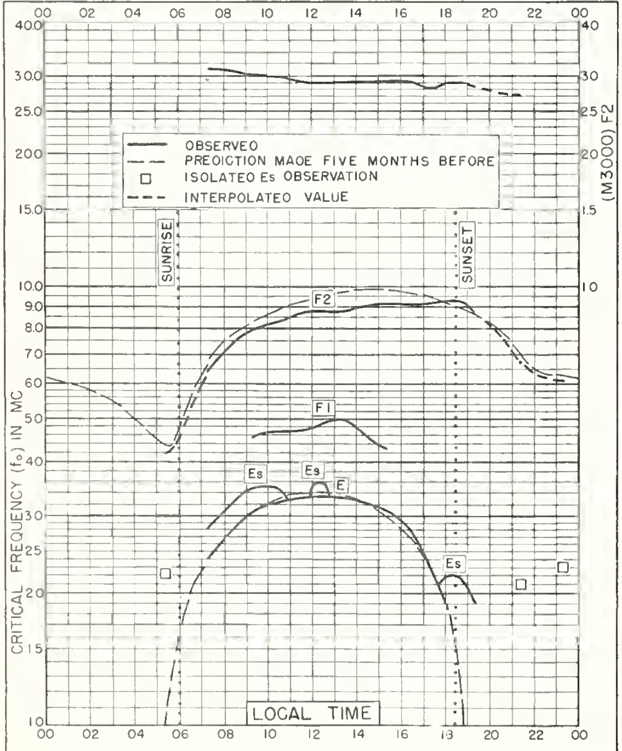



Fig. 91. CAMPBELL I.
52.5°S, 169.2°E MARCH 1948

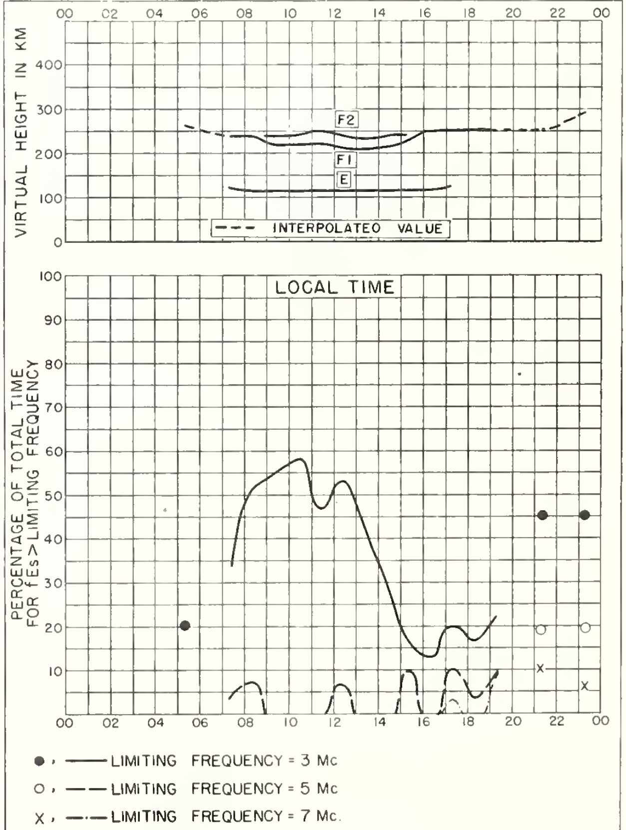



Fig. 92. CAMPBELL I. MARCH 1948

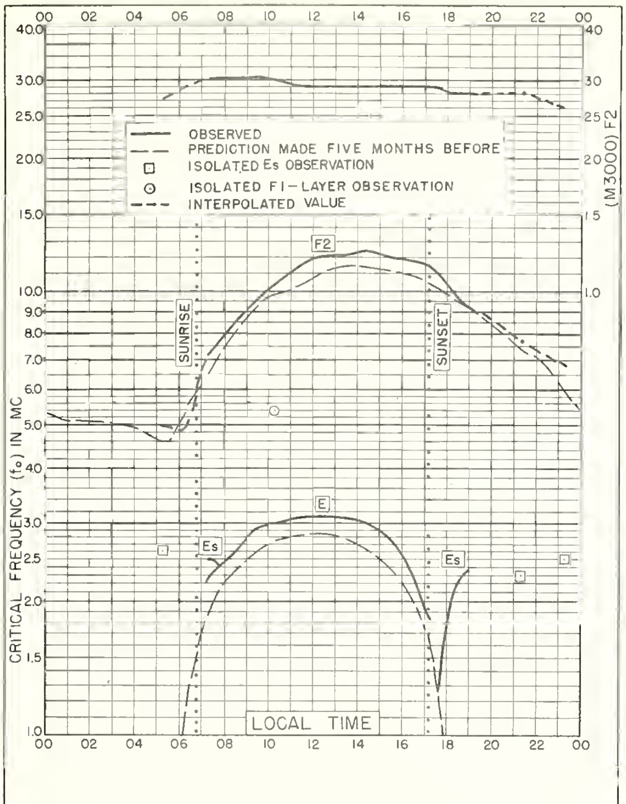
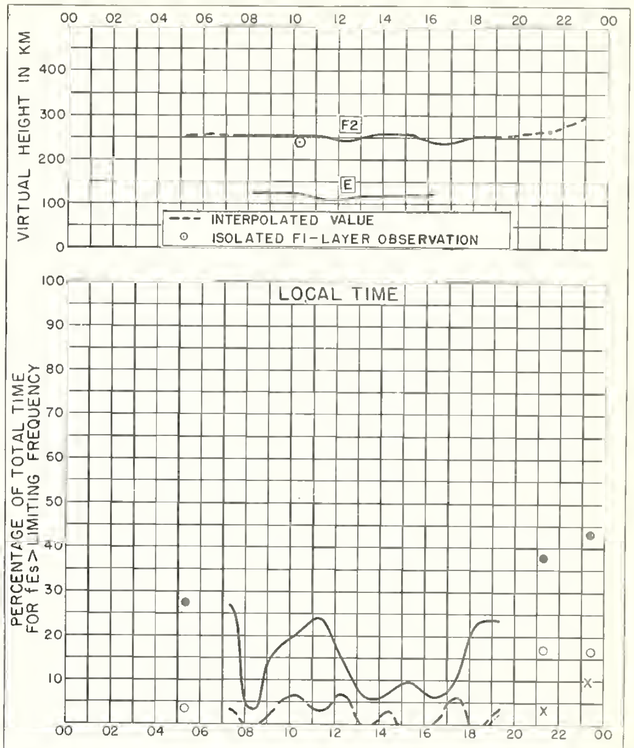
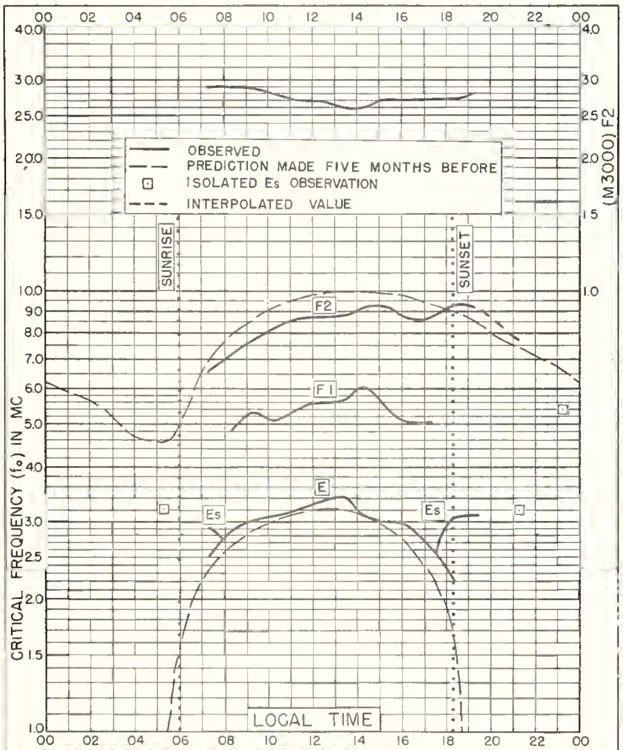



Fig. 93. CAMPBELL I.
52.5°S, 169.2°E APRIL 1947



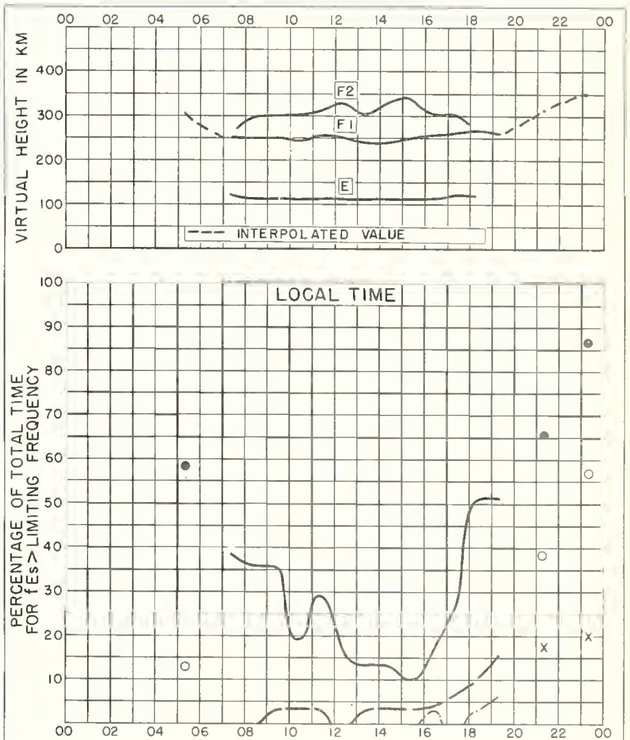

●, ——— LIMITING FREQUENCY = 3 Mc.
○, — — LIMITING FREQUENCY = 5 Mc
X, —·— LIMITING FREQUENCY = 7 Mc.

Fig. 94. CAMPBELL I. APRIL 1947




SUPERSEDES FIG. 67, CRPL-F34

Fig. 95. CAMPBELL I.
52.5°S, 169.2°E MARCH 1947




SUPERSEDES FIG. 68, CRPL-F34

●, ——— LIMITING FREQUENCY = 3 Mc.
○, — — LIMITING FREQUENCY = 5 Mc
X, —·— LIMITING FREQUENCY = 7 Mc.

Fig. 96. CAMPBELL I. MARCH 1947

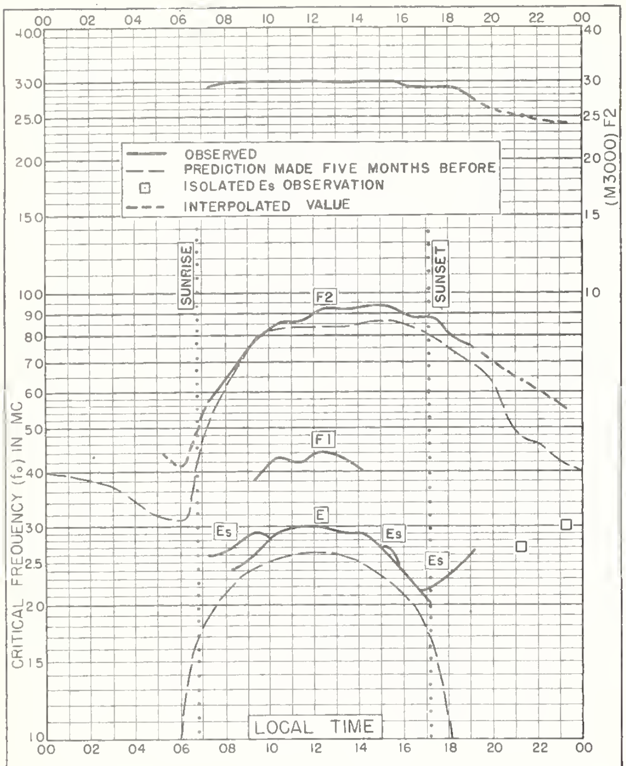



Fig. 97. CAMPBELL I.
52.5°S, 169.2°E APRIL 1946

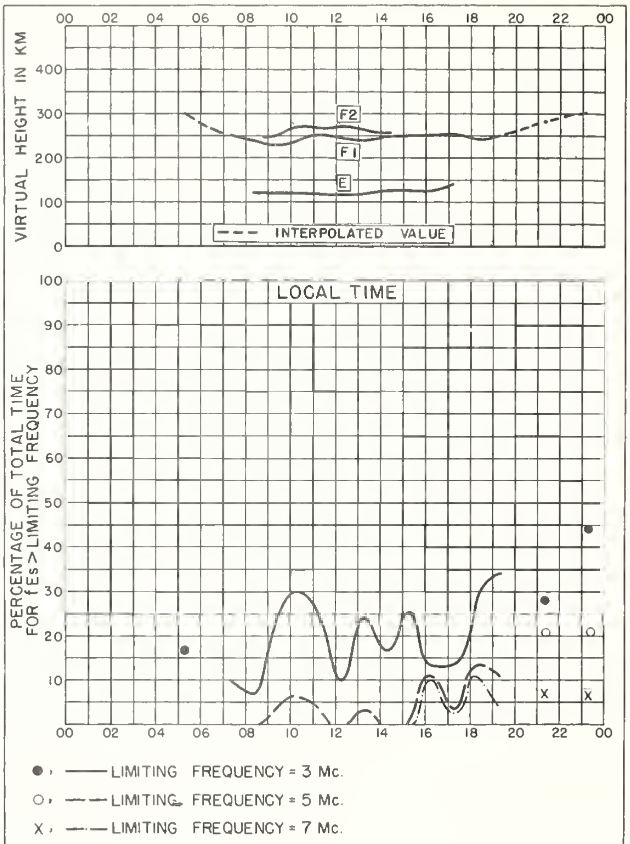



Fig. 98. CAMPBELL I. APRIL 1946

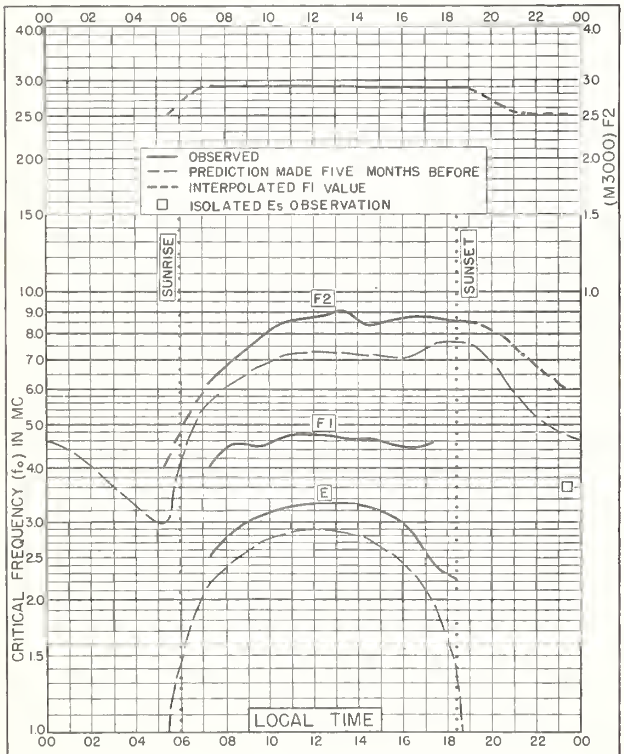



Fig. 99. CAMPBELL I.
52.5°S, 169.2°E MARCH 1946

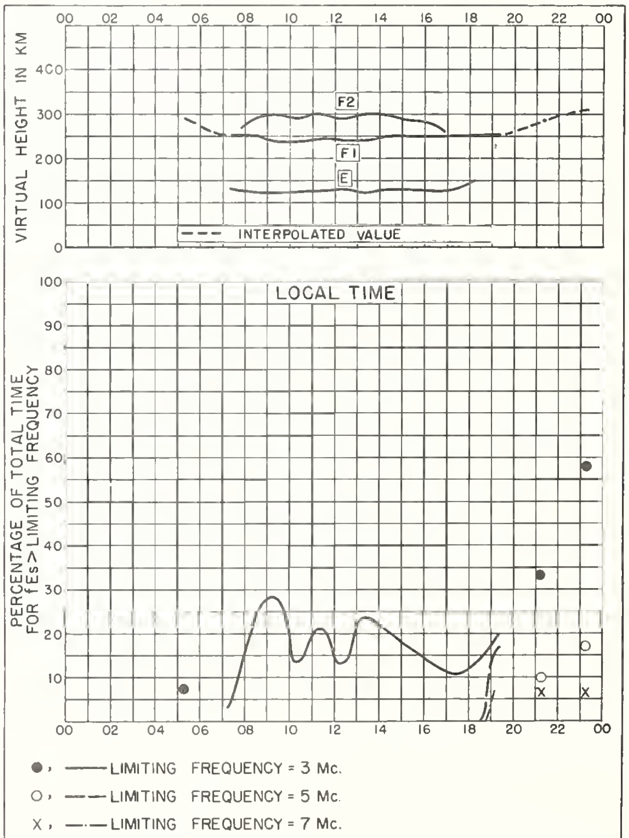



Fig. 100. CAMPBELL I. MARCH 1946

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# CRPL and IRPL Reports

[A list of CRPL Section Reports is available from the Central Radio Propagation Laboratory upon request]

*Daily:*
Radio disturbance warnings, every half hour from broadcast station WWV of the National Bureau of Standards
Telephoned and telegraphed reports of ionospheric, solar, geomagnetic, and radio propagation data.

*Weekly:*
CRPL–J. Radio Propagation Forecast (of days most likely to be disturbed during following month).

*Semimonthly:*
CRPL–Ja. Semimonthly Frequency Revision Factors for CRPL Basic Radio Propagation Prediction Reports.

*Monthly:*
CRPL–D. Basic Radio Propagation Predictions—Three months in advance. (Dept. of the Army, TB 11–499– , monthly supplements to TM 11–499; Dept. of the Navy, DNC 13 ( ) series.)
CRPL–F. Ionospheric Data.

*Quarterly:*
*IRPL–A. Recommended Frequency Bands for Ships and Aircraft in the Atlantic and Pacific.
*IRPL–H. Frequency Guide for Operating Personnel.

*Circulars of the National Bureau of Standards:*
NBS Circular 462. Ionospheric Radio Propagation.
NBS Circular 465. Instructions for the Use of Basic Radio Propagation Predictions.

*Reports issued in past:*
IRPL–C61. Report of the International Radio Propagation Conference, 17 April to 5 May 1944.
IRPL–G1 through G12. Correlation of D. F. Errors With Ionospheric Conditions.
IRPL–R. Nonscheduled reports:
R4. Methods Used by IRPL for the Prediction of Ionosphere Characteristics and Maximum Usable Frequencies.
R5. Criteria for Ionospheric Storminess.
R6. Experimental Studies of Ionospheric Propagation as Applied to the Loran System.
R7. Second Report on Experimental Studies of Ionospheric Propagation as Applied to the Loran System.
R9. An Automatic Instantaneous Indicator of Skip Distance and MUF.
R10. A Proposal for the Use of Rockets for the Study of the Ionosphere.
**R11. A Nomographic Method for Both Prediction and Observation Correlation of Ionosphere Characteristics.
**R12. Short Time Variations in Ionospheric Characteristics.
R14. A Graphical Method for Calculating Ground Reflection Coefficients.
**R15. Predicted Limits for *F*2-Layer Radio Transmission Throughout the Solar Cycle.
**R17. Japanese Ionospheric Data—1943.
R18. Comparison of Geomagnetic Records and North Atlantic Radio Propagation Quality Figures—October 1943 Through May 1945.
**R21. Notes on the Preparation of Skip-Distance and MUF Charts for Use by Direction-Finder Stations. (For distances out to 4000 km.)
**R23. Solar-Cycle Data for Correlation with Radio Propagation Phenomena.
R24. Relations Between Band Width, Pulse Shape and Usefulness of Pulses in the Loran System.
**R25. The Prediction of Solar Activity as a Basis for the Prediction of Radio Propagation Phenomena.
R26. The Ionosphere as a Measure of Solar Activity.
R27. Relationships Between Radio Propagation Disturbance and Central Meridian Passage of Sunspots Grouped by Distance From Center of Disc.
**R30. Disturbance Rating in Values of IRPL Quality-Figure Scale from A. T. & T. Co. Transmission Disturbance Reports to Replace T. D. Figures as Reported.
R31. North Atlantic Radio Propagation Disturbances, October 1943 Through October 1945.
**R33. Ionospheric Data on File at IRPL.
**R34. The Interpretation of Recorded Values of *fEs*.
R35. Comparison of Percentage of Total Time of Second-Multiple *Es* Reflections and That of *fEs* in Excess of 3 Mc.
IRPL–T. Reports on tropospheric propagation:
T1. Radar operation and weather. (Superseded by JANP 101.)
T2. Radar coverage and weather. (Superseded by JANP 102.)
CRPL–T3. Tropospheric Propagation and Radio-Meteorology. (Reissue of Columbia Wave Propagation Group WPG–5.)

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**Out of print; information concerning cost of photostat or microfilm copies is available from CRPL upon request.